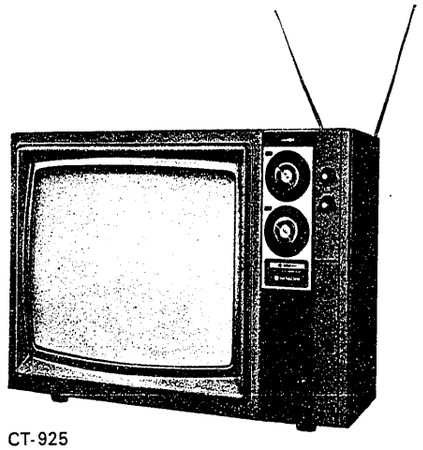
HITACHI

CT-905 CT-944
CT-925 CT-945
CT-935 CT-955
CT-936

SERVICE MANUAL No.267 NP4SX Chassis



CT-925

This is a preliminary service manual that shows only essential items.
Our complete service manual including "alignment procedure", "printed circuit boards" and "replacement parts list" will be published soon.
We hope you will make the best of this for the time being.

TECHNICAL SPECIFICATIONS

ANTENNA INPUT IMPEDANCE ..... 300 ohm balanced
75 ohm (for Coaxtial Cable)
TELEVISION R-F FREQUENCY RANGE
All 12 VHF Channels ..... 54 MHz to 88 MHz
174 MHz to 216 MHz
All 70 UHF Channels ..... 470 MHz to 890 MHz
INTERMEDIATE FREQUENCIES
Picture I-F Carrier Frequency ..... 45.75 MHz
Sound I-F Carrier Frequency ..... 41.25 MHz
Color I-F Frequency ..... 42.17 MHz (nominal)
Sound I-F Frequency ..... 4.5 MHz
Color Sub-Carrier Frequency ..... 3.58 MHz
POWER INPUT ..... 120 volts, 60 Hz

POWER RATING 100W
CONVERGENCE ..... Magnetic
FOCUS ..... Electrostatic
PICTURE TUBE 510HRB22
SPEAKER ..... 8 x 12cm

SOLID STATE COLOR TELEVISION

June 1975

TECHNICAL FEATURES

1. ALL TRANSISTORIZED CIRCUIT

HITACHI transistor television has always taken the lead in black and white TV and established its high reliability in the market.

With this experience of solid state technology and the developments of color television skill, HITACHI present the finest color television in the solid state world.

2. NEW COLOR PICTURE TUBE

New HITACHI KEYED-O-LINE color tube has been developed with high-precision technology and skill. Precision gun, whose grids are unitized in a one piece, incorporates large-diameter lens in a narrow neck picture tube.

This picture tube presents a crip (with its unitized gun and large lenses.), and bright (with its Black-Matrix) picture.

3. QUICK START CPT

Quick start CPT succeeds "QUICK START" feature without preheating method. After turning on the mains switch, the picture comes out in five seconds.

4. HIGH QUALITY CIRCUITS

a. Newly designed scanning system and thoroughly studied circuitry produce the beautiful picture and minimize the geometrical picture distortion.

b. Cathode drive circuit by primary color (R.G.B.) signals assure fine picture.

c. High-performance AGC circuit and noise canceller circuit need no adjustment against a change of field strength. Furthermore, these circuits stabilize the receiver under the most difficult reception conditions and minimize aeroplane flutter and signal fading.

5. HIGH RELIABILITY

Highly-printed circuits, stabilized power supply, and various protection circuits assures highly reliable receiver performance.

6. HIGH SERVICEABILITY

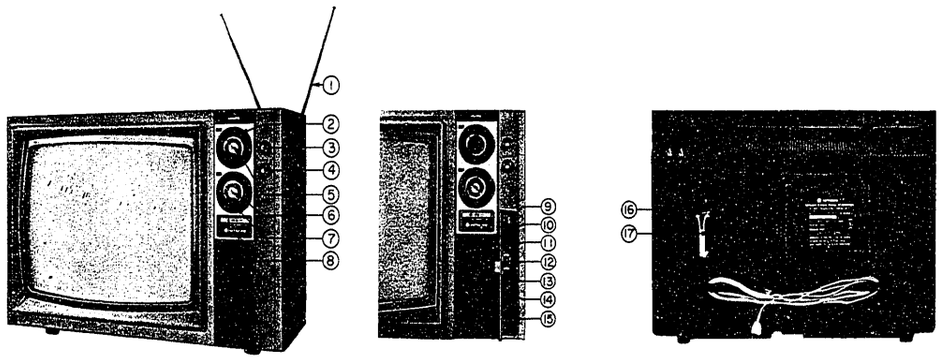
Main chassis unit (panel) can be rested at any three positions for easier access.

Seven function models realize easier diag-nosis and quicker replacement.

7. LOW POWER CONSUMPTION

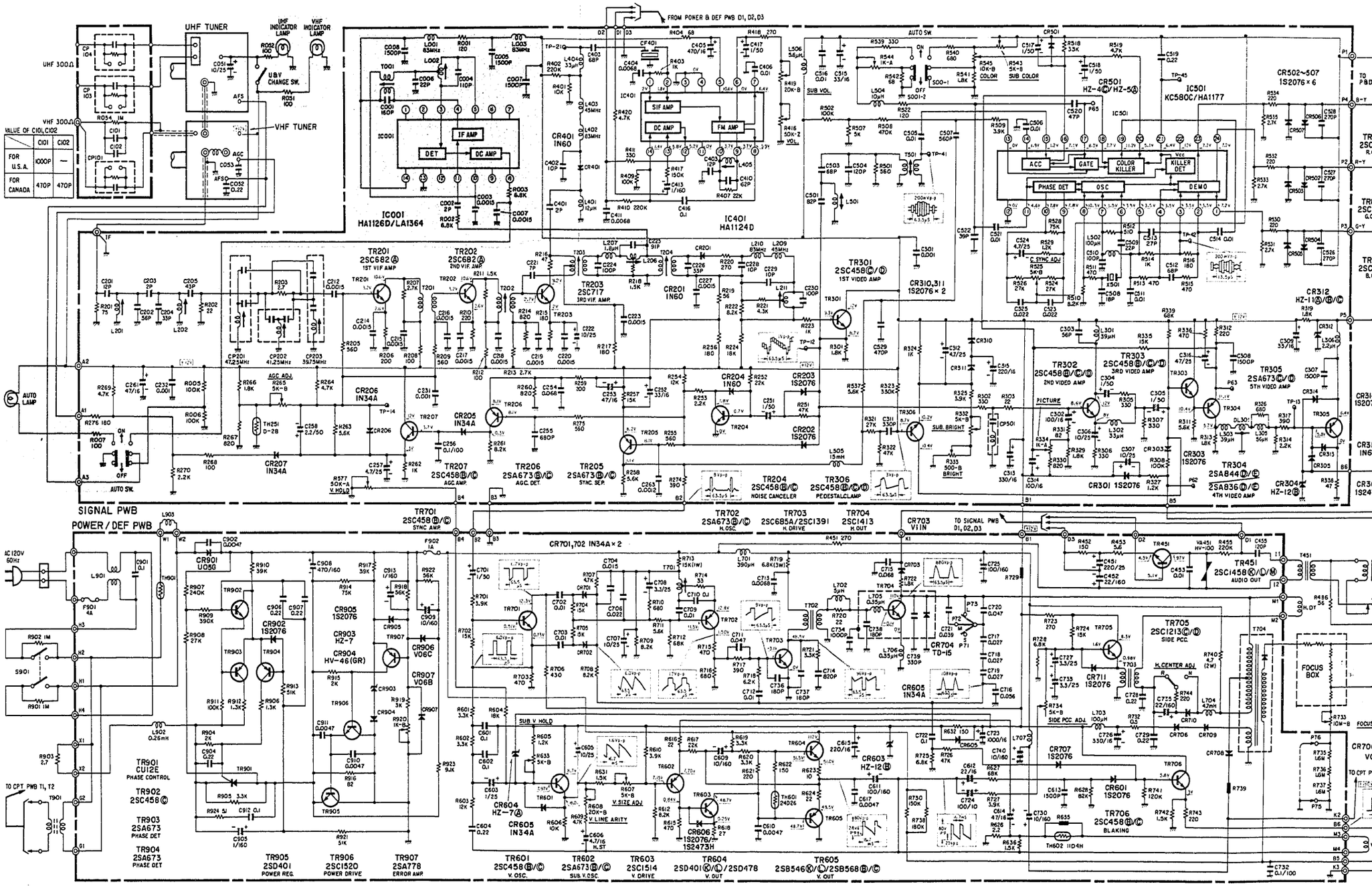
Power consumption is only 100 watts.

CONTROLS

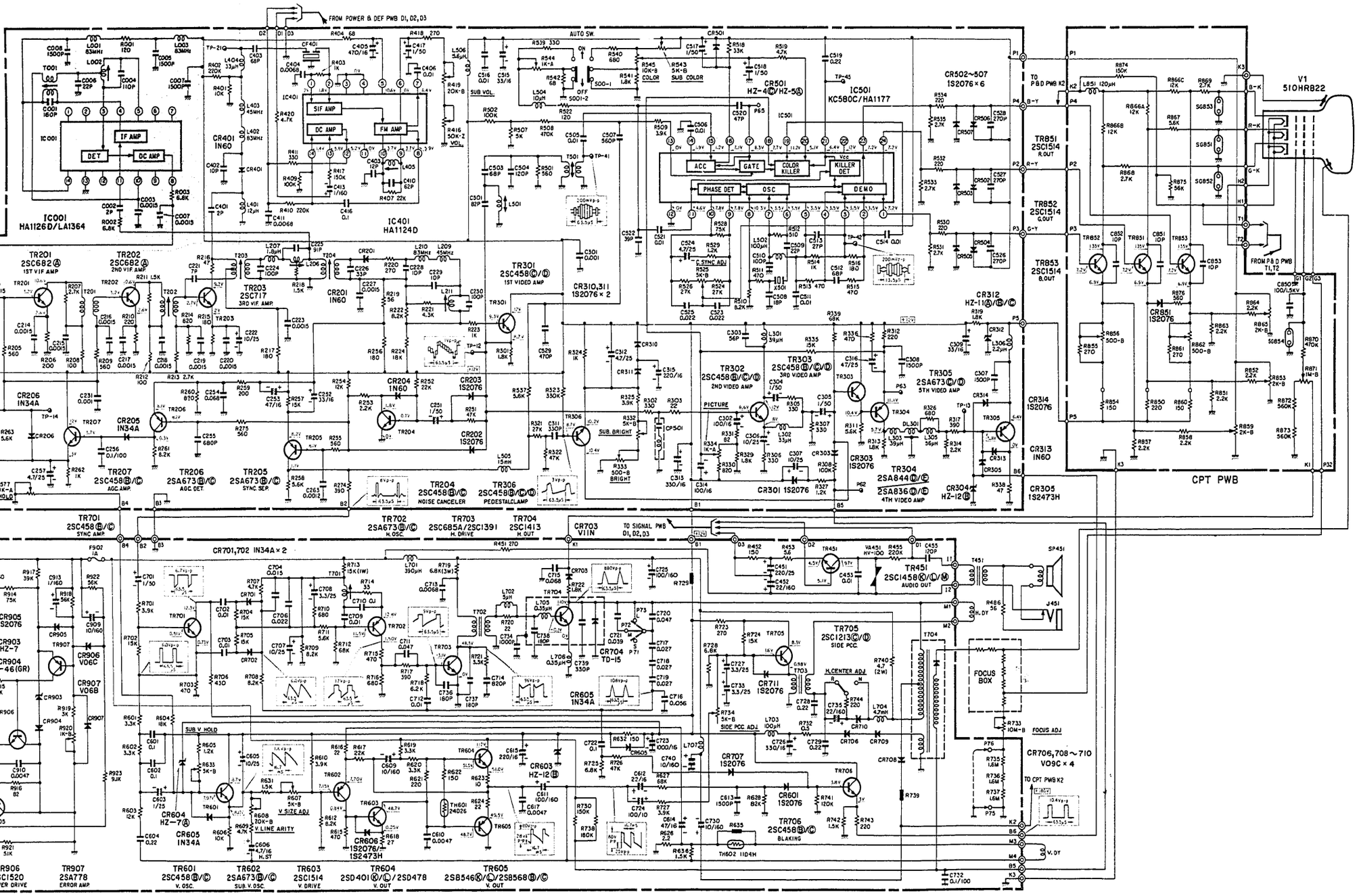


1. TELESCOPIC ANTENNA
2. PUSH FOR VHF PRE-SET FINE TUNING
3. PULL-ON SWITCH
4. VOLUME CONTROL
5. VHF CHANNEL SELECTOR
6. UHF CHANNEL SELECTOR
7. PUSH FOR UHF FINE TUNING
8. ELECTRO APS INDICATOR LAMP
9. AUTO SWITCH
10. CONTRAST
11. BRIGHTNESS
12. COLOR
13. TINT
14. V. HOLD
15. EAR./REC. JACK
16. UHF ANTENNA TERMINAL
17. VHF ANTENNA ADAPTOR

BASIC CIRCUIT SCHEMATIC DIAGRAM (CT-905, CT-925, CT-935, CT-936, CT-944, CT-945, CT-955



BASIC CIRCUIT SCHEMATIC DIAGRAM (CT-905, CT-925, CT-935, CT-936, CT-944, CT-945, CT-955)



(NOTE)

The red part on the circuit schematic diagram varies depending on the model as shown in the table below.

TYPE	AFC	APS	APS INDI. LAMP	UHF VHF CH. INDI. LAMP
CT-905	without	without	without	without
CT-925	with	with	with	without
CT-935	without	with	with	without
CT-936	without	with	with	without
CT-944	with	with	with	without
CT-945	with	with	with	with
CT-955	with	with	with	with

HITACHI

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CT-905 CT-944
CT-925 CT-945
CT-935 CT-955
CT-936

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HITACHI

CT-925
CT-945

REVISED EDITION FOR REPLACEMENT PARTS LIST

PRODUCT SAFETY NOTE –Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	STOCK NO.	DESCRIPTION
	2750092	Antenna-Telescopic antenna
	2750051	Antenna-Loop antenna
⚠	2685771	Antenna terminal board (CT-925)
⚠	2684911	Antenna terminal board (CT-945)
	3157302	Back cover assembly (CT-925)
	3157301	Back cover assembly (CT-945)
	2506371	Board-signal PW board
	3319081	Board-power supply, DEF PW board
	2506411	Board-C.P.T PW board
	3112981	Cabinet assembly (CT-925)
	3112991	Cabinet assembly (CT-945)
	2790162	Capristor (CT-925)
	0599675	Capristor (CT-945)
	3738011	Channel indicator (CT-925)
X501	2783071	Crystal
CF401	2140631	Ceramic filter
⚠	2740872	Cord-AC cord
	2771411	C-F magnet
	3719042	Channel gear (CT-925)
⚠	2440706	Deflection yoke
	3738451	Door
	2730063	Earphone
⚠J451	2670311	Earphone jack
⚠F901	2720058	Fuse 4.0A
⚠F902	2720055	Fuse 1.0A
	3234221	Front frame assembly (CT-925)
	3234251	Front frame assembly (CT-945)
	3736072	Hinge
	3256871	Knob-VHF channel selector (CT-925)
	3253472	Knob-VHF channel selector (CT-945)
	3253461	Knob-VHF pre-set fine tuning
	3256871	Knob-UHF channel selector (CT-925)
	3253472	Knob-UHF channel selector (CT-945)
	3256881	Knob-UHF fine tuning
	3256582	Knob-ON/OFF switch
	3256582	Knob-Volume
	3256602	Knob-Bright, Tint, Color Contrast, V. hold
	3256612	Knob-Electro APS
⚠NE851	2340181	Lamp-Neon lamp
⚠NE852	2340181	Lamp-Neon lamp
⚠NE853	2340181	Lamp-Neon lamp
⚠	2760403	Lamp for Electro APS (CT-925)
	2760402	Lamp for UHF indicator (CT-945)
	2760401	Lamp for VHF indicator (CT-945)
	4193101	Panel (CT-925)
	4193102	Panel (CT-945)
SP451	2410184	Sepaker
S050	2630771	Switch-Push switch
⚠S901	2630833	Switch-ON/OFF switch
⚠SG851	2340034	Spark gap
⚠SG852	2340034	Spark gap
⚠SG853	2340034	Spark gap
⚠SG854	2340034	Spark gap
⚠	2421521	Tuner-VHF tuner HT-326F
⚠	2421533	Tuner-UHF tuner HU-354B
⚠V1	2351041	Tube-C.P.T 510HRB22
	2684641	VHF antenna adaptor
⚠R053	0159247	Variable resistor 50kΩ-Z (Volume)
⚠	2780803	AC plug
	3738021	UHF indicator A (CT-925)
	3738031	UHF indicator B (CT-925)
	4613542	Rubber wedge
	4782841	Tape for wedge
	2782852	Silicon gum

Printed Circuit Board Assy. Listed for reference only. Not, considered replacement aprts.

Printed in Japan NG-TH (S)

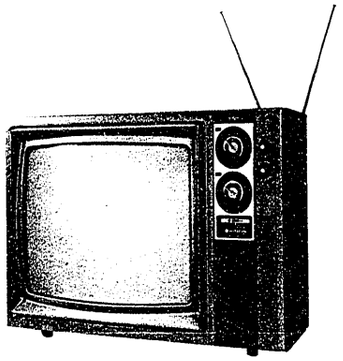
SOLID STATE COLOR TELEVISION

HITACHI

CT-925
CT-945

SERVICE MANUAL No. 275 NP4SX Chassis

CAUTION:
Before servicing this chassis, it is important that the service technician read the "Safety Precautions" and "Product Safety Notices" in this Service Manual.



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CT-925

SPECIFICATIONS

ANTENNA INPUT IMPEDANCE .... 300 ohm and 75Ω
TELEVISION R-F FREQUENCY RANGE
All 12 VHF Channels.....54 MHz to 88 MHz
174 MHz to 216 MHz
All 70 UHF Channels .....470 MHz to 890 MHz
INTERMEDIATE FREQUENCIES
Picture I-F Carrier Frequency .....45.75 MHz
Sound I-F Carrier Frequency .....41.25 MHz
Sound I-F Frequency .....4.5 MHz
Color Sub-Carrier Frequency .....3.58 MHz
POWER INPUT .....120 volts, 60 Hz
POWER RATING ..... 100 watts (Max.)

CONVERGENCE .....Self convergence
FOCUS .....Electrostatic
PICTURE TUBE 510HRB22

SOLID STATE COLOR TELEVISION

August 1975

SAFETY PRECAUTIONS

NOTICE: Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.

WARNING: Since the chassis of this receiver is connected to one side of AC power supply during operation, whenever the receiver is plugged in, service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of receiver.

The following precautions should be observed:

1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away while picture tubes are handled. Keep picture tube away from the body while handling.
2. When service is required, an isolation transformer should be inserted between power line and the receiver before any service is performed on a "HOT" chassis receiver.
3. When replacing a chassis in the receiver, all the protective devices are put back in place, such as; barriers, non-metallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
4. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
5. Always use the manufacturer's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
6. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the receiver by the manufacturer has become defective, or inadvertently defeated during servicing.

Therefore, the following checks are recommended for the continued protection of the customer and service technician.

Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistance reading of 0.3MΩ and a maximum resistance reading of 4MΩ. Any resistance value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power switch on. Using a "leakage Current Tester", measure for current from all exposed metal parts of the cabinet (antennas, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE RECEIVER TO THE CUSTOMER.

High Voltage

This receiver is provided with a safety circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this safety circuit when servicing, so that this safety circuit may correctly be operated.

X-Ray Radiation

TUBE: The primary source of X-Ray radiation in this receiver is the picture tube. The tube utilized for the above mentioned function in this chassis is specially constructed to limit X-RAY rediation emissions.

For continued X-RAY radiation protection, the replacement tube must be the same type as the original, HITACHI approved type.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in HITACHI television receiver have special safetyrelated characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by shading on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the smae safety characteristics as the HITACHI recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, X-Ray radiation, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies of, HITACHI Service Manual may be obtained at a nominal charge from your HITACHI SALES CORPORATION.

TECHNICAL FEATURES

1. ALL TRANSISTORIZED CIRCUIT

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This picture tube presents a crip (with its unitized gun and large lenses). and bright (with its Black-Matrix) picture.

3. QUICK START CPT

Quick start CPT succeeds "QUICK START" feature without preheating method. After turning on the mains switch, the picture comes out in five seconds.

4. HIGH QUALITY CIRCUITS

a. Newly designed scanning system and thoroughly studied circuitry produce the beautiful picture and minimize the geometrical picture distortion.
b. Cathode drive circuit by primany color (R.G.B.) signals assure fine picture.
c. High-performance AGC circuit and noise canceller circuit need no adjustment against a change of field strength. Furthermore, these circuits stabilized the receiver under the most difficult reception conditions and minimize aeroplane flutter and signal fading.

5. HIGH RELIABILITY

Highly-printed circuits, stabilized power supply, and various protection circuits assures highly reliable receiver performance.

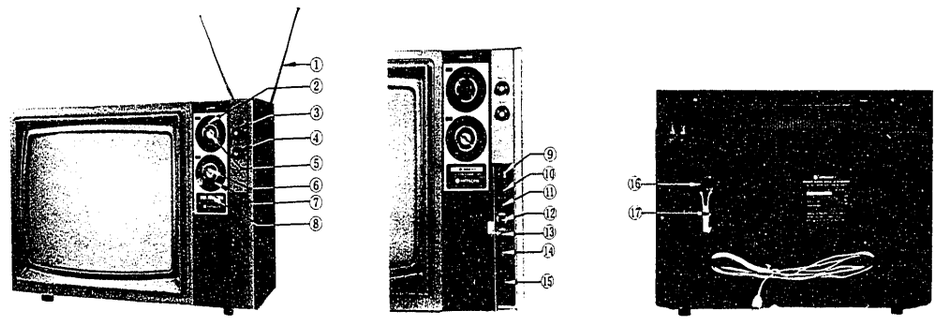
6. AUTOMATIC DEGAUSSING

This receiver is equipped with an automatic degaussing coil which effectively demagnetizes the picture tube each time the receiver is turned "off".

7. LOW POWER CONSUMPTION

Power consumption is only 100 watts.

CONTROLS



1. TELESCOPIC ANTENNA
2. VHF PRE-SET FINE TUNING
3. PULL-ON SWITCH
4. VOLUME CONTROL
5. VHF CHANNEL SELECTOR
6. UHF CHANNEL SELECTOR
7. UHF FINE TUNING
8. ELECTRO APS INDICATOR LAMP
9. APS/AFC SWITCH
10. CONTRAST
11. BRIGHTNESS
12. COLOR
13. TINT
14. V. HOLD
15. EAR./REC. JACK
16. UHF ANTENNA TERMINAL
17. VHF ANTENNA ADAPTOR

INSTALLATION AND ALIGNMENT

1. VIF CIRCUIT ALIGNMENT

Voltage supply and connections · · · · See Fig. 1.

1) Apply + 3.5V to the terminal TP14.
2) Apply + 12.8V to the terminal P1.
3) Oscilloscope connect to the terminal TP12.
4) Marker generator. (35–50 MHz).
5) Sweep generator (35 – 50 MHz).

STEP	SIGNAL GENERATOR	OSCILLOSCOPE	ALIGNMENT CIRCUIT	ALIGN-MENT	ALIGNMENT PROCEDURE	WAVEFORM
1	Collecter of TR202 {Marker gener. Sweep gener.}	TP12	V-IF	T203 T204 (L206)	Get rid of L206 out of its band range by alignment. Adjust the T203, T204.	(70~90%) 1.0Vp-p 42.17MHz 45.75MHz
2	Collecter of TR202. {Marker gener. Sweep gener.}	TP12	V-IF (Final Trap)	L206	Adjust the marker to 41.25 MHz and adjust L206 to minimize oscillation of the output as in Fig.	41.25MHz (85~100%) 1.0Vp-p 42.17MHz 43.75MHz
3	Collecter of TR202. {Marker gener. Sweep gener.}	TP12	V-IF	T203 T204	Adjust the T203, T204 so output of waveform become as in Fig.	41.25MHz (80±5%) (100+0%−30%) 1Vp-p 42.17MHz 45.75MHz
4	Tuner TP. {Marker gener. Sweep gener.}	TP12	V-IF	CP203 CP201 CP202	39.75 MHz – min. 47.25 MHz – min. 41.25 MHz – min.	
5	Tuner TP. {Marker gener. Sweep gener.}	TP12	V-IF	L201 L202 IFT of VHF Tuner	Adjust the 45.75 MHz, 42.17 MHz to the as in Fig.	41.25MHz 47.25MHz 0% 50±10 % 50±5 % 1.0Vp-p 42.17MHz 45.75MHz 100%

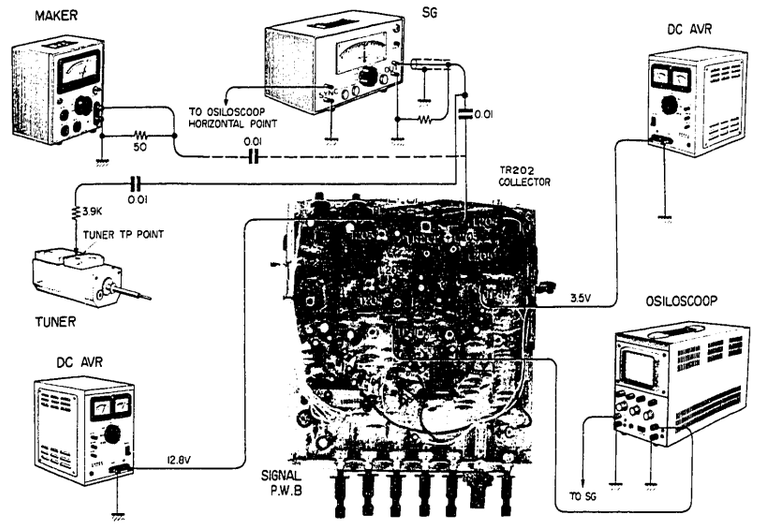


Fig. 1

2. AFC CIRCUIT ALIGNMENT

Voltage supply and connections · · · · See Fig. 1.

1) Apply + 12.8V to the terminal P1.
2) Apply + 3.5V to the terminal TP14.
3) Marker generator (35 ~ 50 MHz).
4) Sweep generator (35 ~ 50 MHz).
3), 4) Connect to the (H) terminal of Oscilloscope.

SIGNAL	OSCILLOSCOPE	ALIGNMENT	ALIGNMENT PROCEDURE
Marker generator 45.75 MHz	A3	L002	Adjust the L002 so output voltage of A3 becomes 6.5 ± 1.0V on Oscilloscope DC voltage range.
Marker generator Sweep generator	A3	T001	Adjust the T001 so output of signal as Fig. A: B=3:1 A, B, 45.75MHz, 6.5±1.0V, −1.5, 0, 1.5, FREQUENCY(MHz)

3. SIF CIRCUIT ALIGNMENT

Voltage supply.

1) Apply + 12.8V to the terminal P1.

SIGNAL	DC V.T.V.M.	ALIGNMENT CIRCUIT	ALIGNMENT	ALIGNMENT PROCEDURE
TP21. Signal generator 4.5 MHz/400 Hz FM ··· ±7.5 KHz devi. 300-100mVrms output	D1	S-IF	L405	Adjust the L405 so output of signal becomes maximum.

4. BAND-PASS CIRCUIT ALIGNMENT

Voltage supply and connections · · · · See Fig. 2.
1) Apply + 3.5V to the terminal TP14.
2) Apply + 12.8V to the terminal P1.

STEP	SIGNAL GENERATOR	OSCILLOSCOPE	ALIGNMENT CIRCUIT	ALIGN-MENT	ALIGNMENT PROCEDURE	WAVEFORME
1	Between L209, C229. {Marker gener. / Sweep gener.}	TP12 (V.T.V.M)	4.5 MHz trap.	L211	Adjust the L211 so output of signal becomes minimum.	———
2	Tuner TP. {Marker gener. / Sweep gener.}	C505	Band-pass	L501	Adjust the marker to 4.08 MHz and adjust T501 so output of signal becomes maximum.	———
3	Tuner TP. {Marker gener. / Sweep gener.}	C505	Band-pass	T501	Adjust the marker to 3.58 MHz and adjust T501 so output of signal becomes flat.	———
4	Tuner TP. {Marker gener. / Sweep gener.}	C505	Band-pass	L501 T501	Adjust the L501, T501 so output of waveform become as in Fig.	30.8MHz, 34.08MHz, 85±5%, 60±20%, ±10%

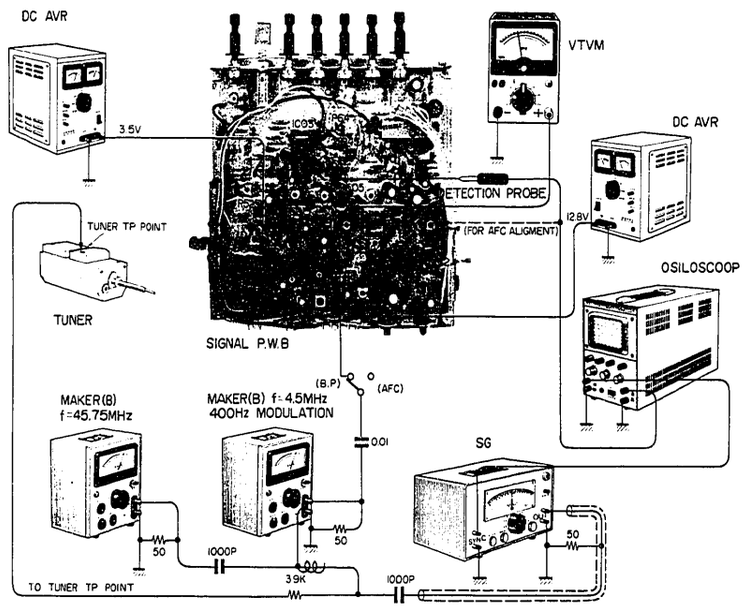


Fig. 2

5. CHROMA SYNC. CIRCUIT ALIGNMENT

SIGNAL	ALIGNMENT CIRCUIT	ALIGNMENT	ALIGNMENT PROCEDURE
Antenna terminal (Color bar generator)	Chroma	Color VR (R545) Tint VR (R544) Cont. VR (R334)	Adjust the color, tint, cont. to mechanical center position.
	Connect the between P64 and P65 by jamper wire, also connect the 22kΩ between TP45 and ground.		
	Chroma	R525	Adjust the R525 until color sync may be stoped.
	Release the jamper wire and 22kΩ.		

6. HORIZONTAL CIRCUIT ALIGNMENT

ALIGNMENT CIRCUIT	ALIGNMENT	ALIGNMENT PROCEDURE
H. Hold	T701	Ground to lead pin side of P70 with a 10μF/50V, release it when finished. Obtain horizontal synchronization.
H. SIZE	ADJ. pin of H. size	Adjust to obtain the ideal picture on the screen.
H. CENTRE	ADJ. pin of H. centre	
SIDE PINCUSSION	R734	

7. VERTICAL CIRCUIT ALIGNMENT

ALIGNMENT CIRCUIT	ALIGNMENT	ALIGNMENT PROCEDURE
SUB V. HOLD	R633	Turn R633 fully clockwise, and then turn R557 fully counter clockwise. Connect the 1.2 kΩ between the terminal side of R605 and the terminal side of R632, release it when finished. Obtain vertical sync.
V. SIZE	R607	Adjust to obtain the ideal picture on the screen.
V. LINEALTY	R608	

8. FOCUS ALIGNMENT

Receive broadcasting and adjust the focus VR(R733) so that the best focus can be obtained for all over the surface of the image in a bright condition.
In case there is no optimum point, replace the sub-focus pin (P75, P76) of power deflecting base board and regulate the volume once again.

10. WHITE BALANCE ALIGNMENT

1) Receive broadcasting (In the case of color broadcasting, put out colors.), turn Auto Switch to "OFF", turn contrast control R334 fully counterclockwise and turn Brightness control R333 fully clockwise.
2) Turn Screen control R871 and BKG (Background) control, R853(red), R859(green) and R865(blue) of CPT P.W. board fully counterclockwise.
3) Disconnect 1 pin connector from P5 of the signal P.W. board.
4) Stop vertical oscillation by jamp-wire between the terminal side of R602 and P74 (GND).
5) Gently turn Screen control clockwise and set it to a point where a horizontal line of any one of red, green and blue can be dimly seen. Then, adjust BKG control so that all of red, blue and green can be dimly seen.
6) After generating vertical oscillation by release the jamp-wire connected item 4), connect the pin connector to P5 of the signal P.W board.
7) Achieve white balance for the high brightness part by means of the Drive control R856 (green) and R862 (blue) of CPT P.W board.
8) Ensure that white balance for the low brightness part is held by squeezing the brightness. In case the white balance is deviated, regulate it by turning BKG control slightly. Depending on the content of receiving program, there are cases in which brightness cannot be squeezed. In that case, carry out the regualtion watching the dark part in the image.

11. AUTO ALIGNMENT

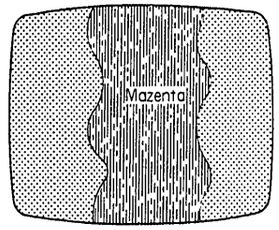
This regulation should be carried out after finishing regulation of the white balance. The brightness around the set should be made about the same as that at night with a television se turned ON.

1) Receive color broadcasting and turn Auto Switch to "OFF".
2) Turn Cont. control R334 and Color control R545 counterclockwise. Set Brightness control R333 and Tint control R544 to the click positions respectively.
3) Turn and set the sub-brightness control R332 so that the black part of the screen (including human hairs) can be properly seen.
4) With Auto Switch set to ON, set Cont. control R334 and Color control R545 to the click positions respectively. In this state, set Sub Color Saturation control R543 so that a proper color depth can be obtained.
5) Furthermore, even with Auto Switch set to ON, Color control R545 and Tint control R544 can be finely regulated. So, when the color tone is not proper, regulate it by turning Tint control R544.

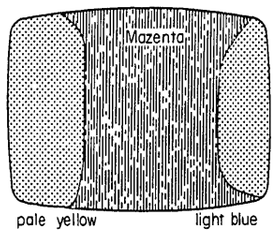
12. PURITY ALIGNMENT

Before preceeding the below, please under go plelimi-nary static convergence adjustment on this page.

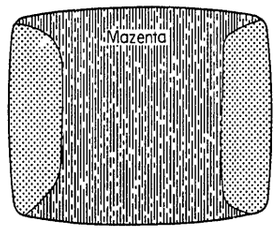
1. Push the scan coil fully up to funnel part of the picture tube Disconnect the (G-Y) plug from the signal P.W. board, and see the broad mazenta belt appears on the screen ... Fig. 3-(A).
2. Pull out the scan coil gradually towards you and see that two ovel parts (colored pale yellow and light blue) appear on each side of the screen ... Fig. 3-(B).
3. Rotate the puritymagnet (C) (Fig. 4) and set the two colored parts to become equal in area Fig. 3-(C).
4. Pull out the scan coil gradually towards you again until two colored parts disappear simultaneously. See that the white purity – connect (G-Y) plug – is all right, insert preliminary rubber wedge between the funnel and the scan coil backward at the top, if not, pull out the scan coil until ideal white purity is obtained. Fasten the scan coil securely by tightening the screw (D).
5. Unless the red purity (disconnect both (G-Y) (R-Y) plugs is obtained, repeat the steps 2) 4) again.



(A)



(B)

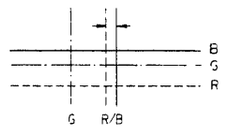
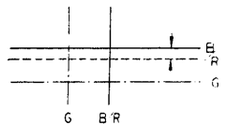
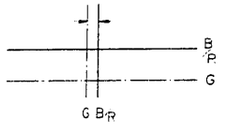
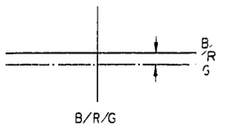


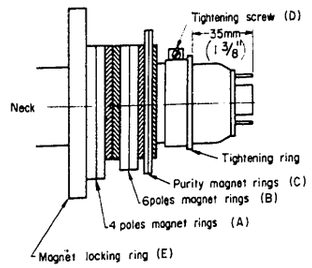
(C)

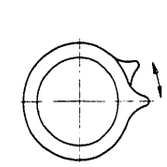
Fig. 3

13. STATIC CONVERGENCE ALIGNMENT

1. Put the Purity Convergence magnet assembly on the picture tube nack, so that the edge of tightening 35mm (1-3/8") from the tip of the neck. Secure it firmly by tightening the screw (D).
2. Observe the centre part of the screen.

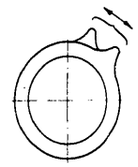
STEP	CONVERGING LINES	MAGNET (Fig. 4)	MAGNET (Fig. 4)	CENTRE OF THE SCREEN
1	Vertical Blue and Red	4 poles (A)	sliding (a)	
2	Horizontal Blue and Red	4 poles (A)	rotating (b)	
3	Vertical B/R and Green	6 poles (B)	sliding (a)	
4	Horizontal B/R and Green	6 poles (B)	rotating (b)	
5	See that all the lines are converged, at the centre part if not repeat step 1 and 2.			





Sliding two magnet rings to each other

(a)



Rotating both magnet rings together

(b)

Fig. 4

14. DYNAMIC CONVERGENCE ALIGNMENT

1. Push in the Preliminary rubber wedge between the funnel part and scan coil gradually until both horizontal and vertical lines are converged at the circumference of the screen ... Fig. 5.

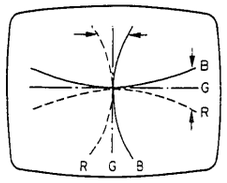
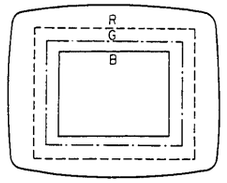


Fig. 5

2. Proceed according to the arrangements on the screen ... Fig. 6 (a) and (b).



(a)

i) Insert Fixing wedge at 3 oclock position until three coloured squares are converged.
ii) Insert two Fixing wedge at 7 and 11 o'clock position and fix these wedges by highly adhesive tape. Then pull up Preliminary wedge.

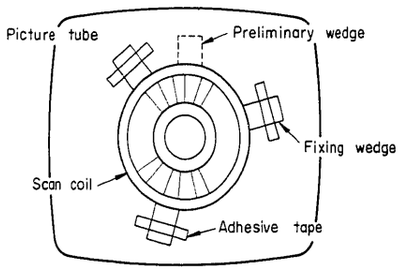
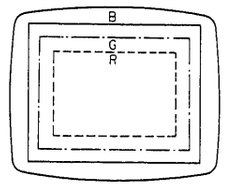


Fig. 6 (b)

iii) Insert Fixing wedge at 9 o'colck position until three colored squares are converged.
iv) Insert two Fixing wedge at 1 and 5 o'clock positions and fix these wedges by highly adhesive tape. Then pull up Preliminary wedge.



(a)

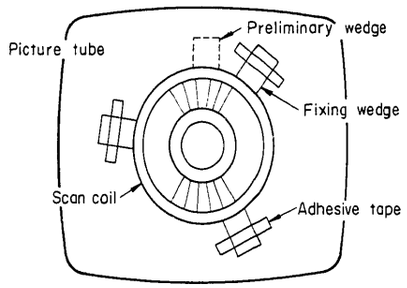


Fig. 7 (b)

1. POWER SUPPLY CIRCUIT (+B Voltage Regulator)

1. Functions

+B VOLTAGE REGULATOR is a circuit for supplying stabilized voltage through filtration of rectified AC input. Series type voltage regulator has been adopted. (Refer to schematic diagram.)

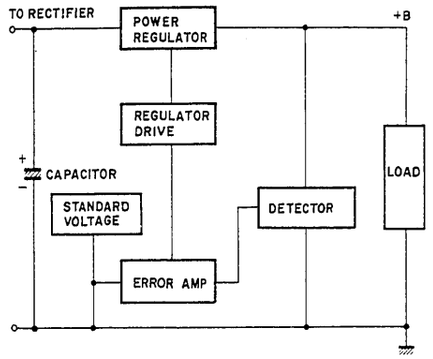


Fig. 1: Block diagram of +B voltage Regulator.

First, output +B voltage is detected by bleeder resistor. Difference between detected voltage and standard voltage is amplified by error amplifier, and then transmitted to regulator drive and power regulator in order to change voltage at both ends of the power regulator, whereby output voltage is controlled to be constant. Output voltage changes depending upon variation of resistor values in detective section, of voltage at zener diode in standard voltage section, and of current gains in error amplifier, regulation drive and power regulator.
+B voltage setting adjustment function is provided to absorb these variations.
+B voltage adjustment is made by semi-variable resistor provided in the detective section.
After +B adjustment, the semi-variable resistor (R920) is sealed in the factory.

2. Method of adjustment.

(a) Conditons where adjustment is needed.
Adjustment is needed when the following components have been replaced.

*Resistor for detection R918, R919, R920
*Zener diode for standard voltage CR903
*Temperature compensation varistor CR904
*Error amplifier TR907
*Regulator drive TR906
*Power regulator TR905
Refer to circuit schematic diagram.

(b) Procedure

Step 1: Replace semi-variable resistor (R920) for +B adjustment, since it has been preadjusted and sealed in the factory.
Step 2: Fully turn R920 clockwise.
Step 3: Connect DC voltmeter (precision ±2%) to between output terminal (F902) and chassis ⊖.
Step 4: Adjust output terminal voltage to 120V ±2V (CT-925, CT-945), 112V ±2V (CR-315, CE-705) by gently turning R920 counter clockwise.
Step 5: Fix R920 according to the methods below.

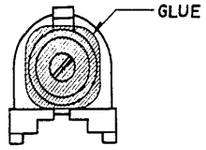


Fig. 2: Glue Procedure

After adjustment, fix by applying HITACHI specified glue.

Step 6: After glue applied to R920 has cured, confirm that +B voltagyis coincident with the value in Step 4.

2. SAFETY CIRCUIT

1. Circuit Operation

Circuit (1)

In reference to Fig. 3, forward bias is applied between TR907 base and emitter, and reverse bias between TR908 base and emitter in normal conditions, but, when power regulator circuit is destoryed by some cause, and output voltage thereby increases, TR908 base voltage from the R918, R919 and R920 divided output voltage rises. Since emitter is kept constant by zener diode CR903, voltage between TR908 base and emitter changes into forward bias, thereby turning on TR908. As collector of TR908 is connected with horizontal oscillator TR702 via CR908 (1S 2076), the horizontal oscillation frequency will be changed and high voltage will be declined by operation of TR908. Consequently, the screen darkens, and the picture on it disappears.

Circuit (2)

Regarding Fig. 3, when there occurs an abnormal high voltage in the receiver, positive pulse on FBT winding is enlarged, and voltage on 12V line increases. When this voltage becomes higher than the zener voltage of diode (CR712), the diode turns conductive to turn on TR707. Since collector of TR707 is connected to base of TR701 (SYNC. AMP.) via R747 (100Ω). Both horizontal and vertical synchronization signals on TR701 base and TR601 will not be added at all upon actuation of TR707, whereby the picture runs out of both horizontal and vertical synchronizations.

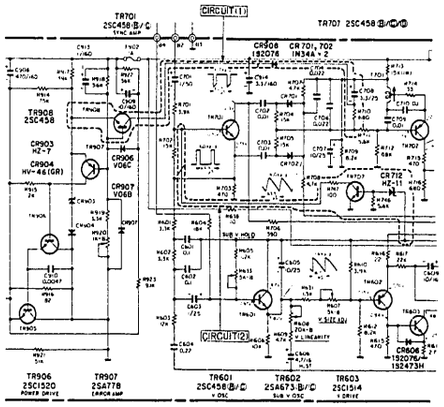


Fig. 3: Safety circuit

Use HITACHI specified components for replacement of such components which have some effect more or less over high voltage rising. Further, confirm without fail that safety circuit can operate correctly.

Components

C720	FBT	CR712
C721	DY	R746
C717	C728	TR707
C718	C729	R747
C719	TR908	R632 (CR315, CE705:
C716	CR908	1.1KΩ; CT-925,
		CT-945: 1.2KΩ)

2. Check of Safety Circuit.

Condition: AC Input ..... 110V to 132V

Step 1: Fully turn VR of Equipment-A counterclockwise.

Step 2: Connect Equipment-A as shown in Fig. 4.

Step 3: Connect DC voltmeter (precision ±2%) as shown in Fig. 4.

Step 4: Turn the receiver on. and APS SW off. fully rotate BRIGHT and CONTRAST VR clockwise.

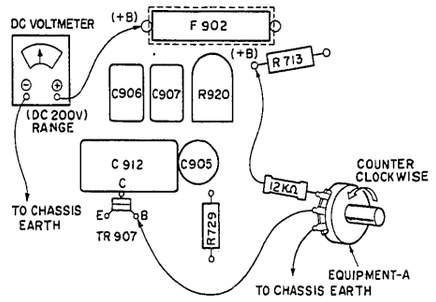


Fig. 4: Checking method

Step 5: Slowly turn VR of Equipment-A clockwise, and confirm that picture on the screen runs out synchronization at the indication of DC voltmeter between 125V and 140V DC (CT-925, CT-945), 117V and 130V DC (CR-315, CE-705).

Specification of Equipment-A

Variable Resistor : 1kΩ-B (±2%)

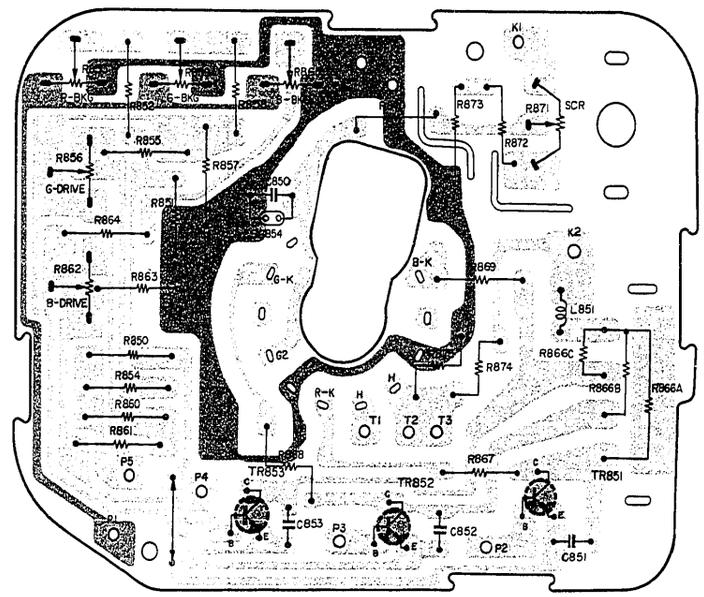
Resistor : 12kΩ (±5%), 2W

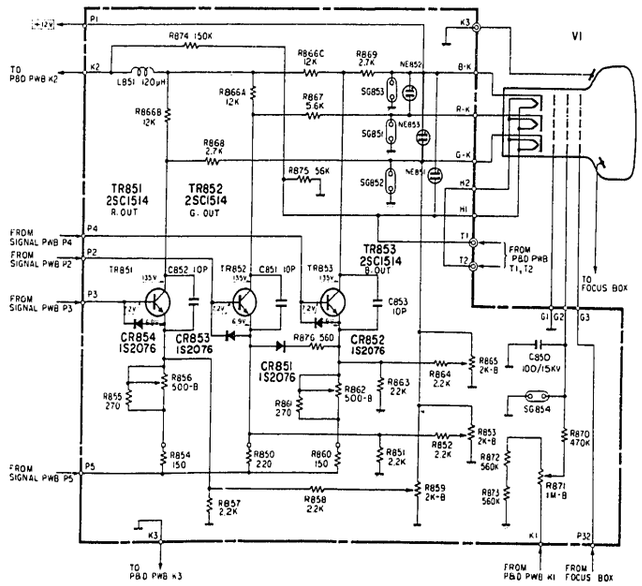
Lead length : approx. 300mm (12")

PRINTED CIRCUIT BOARD, CIRCUITS

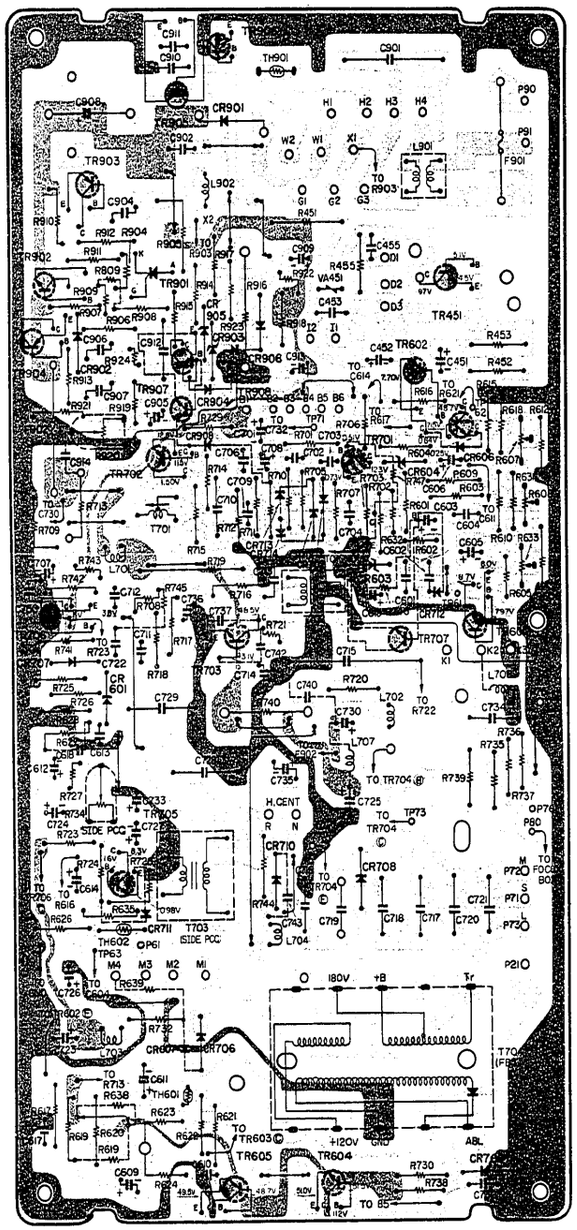
1. C.P.T. BOARD

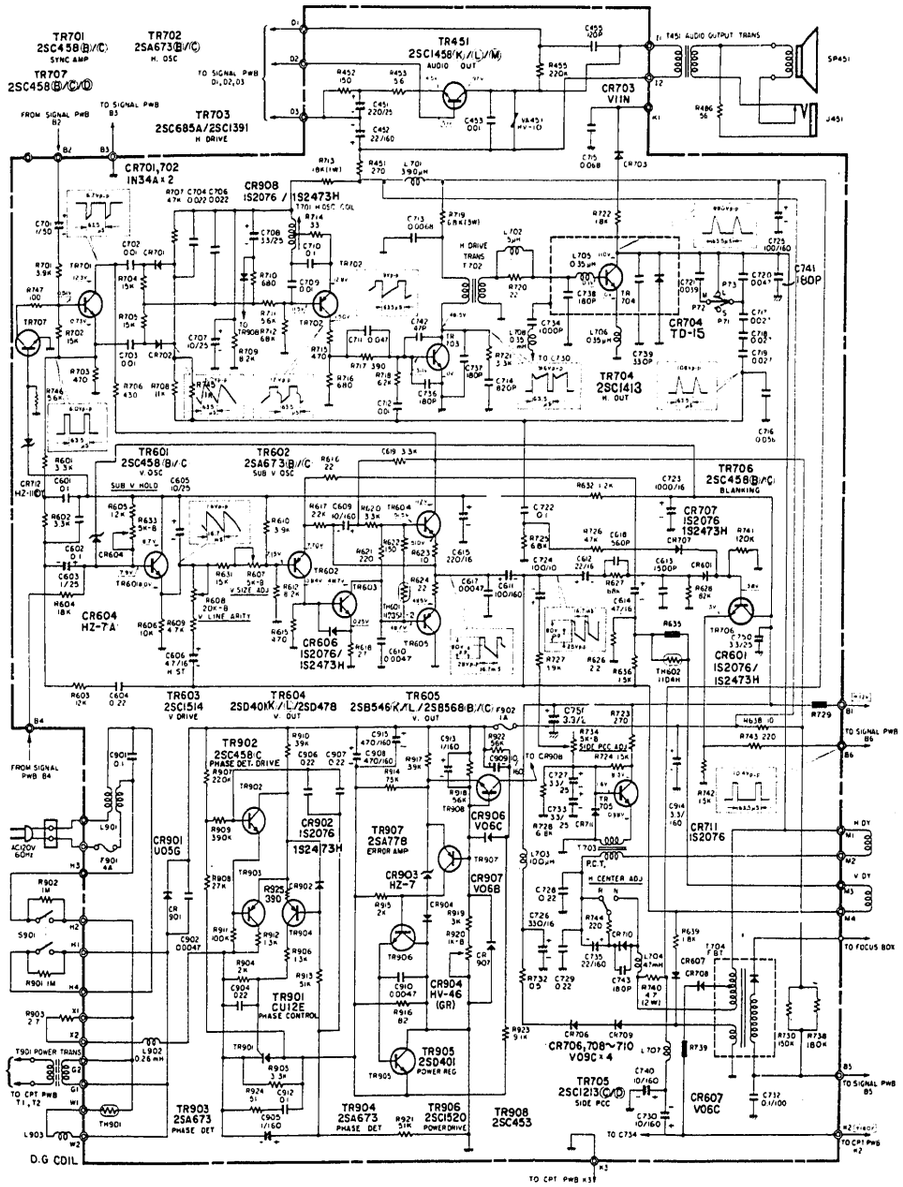
+B PATTERN ..... SIGNAL PATTERN ..... GROUND PATTERN



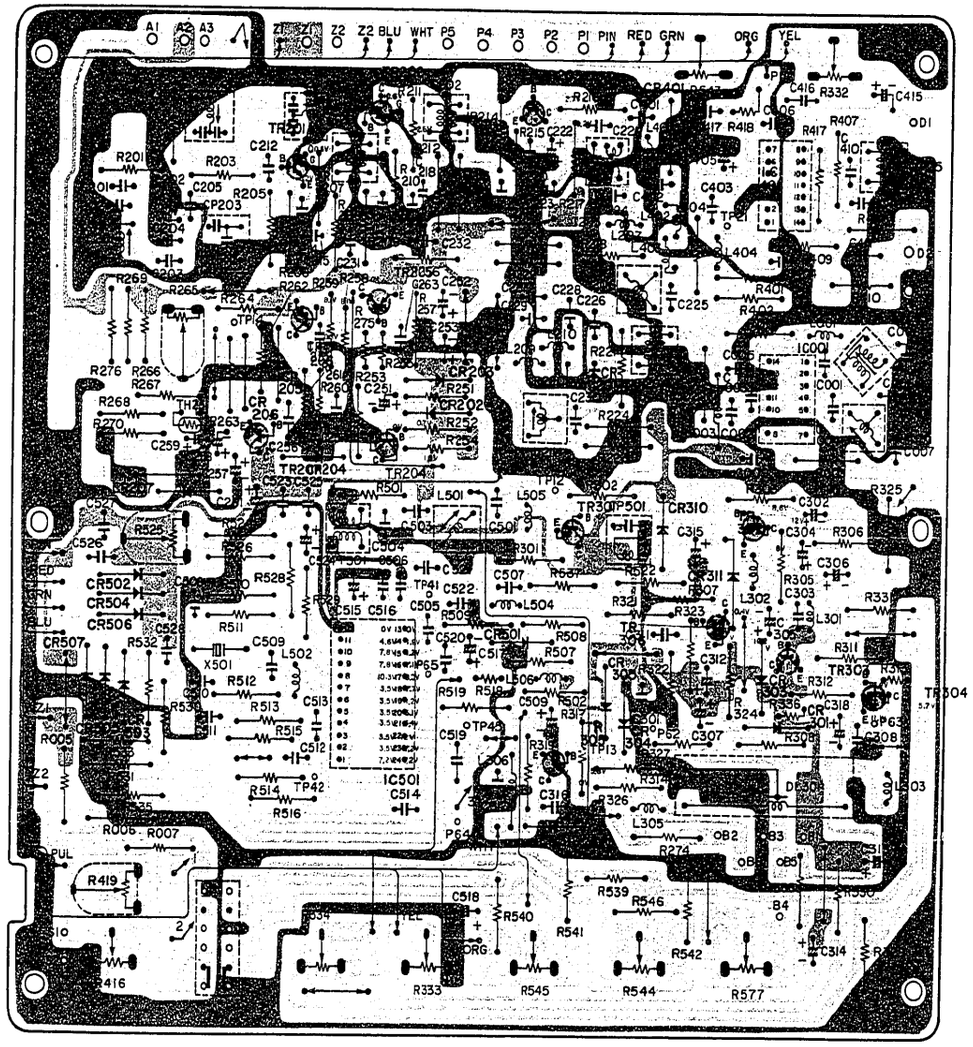


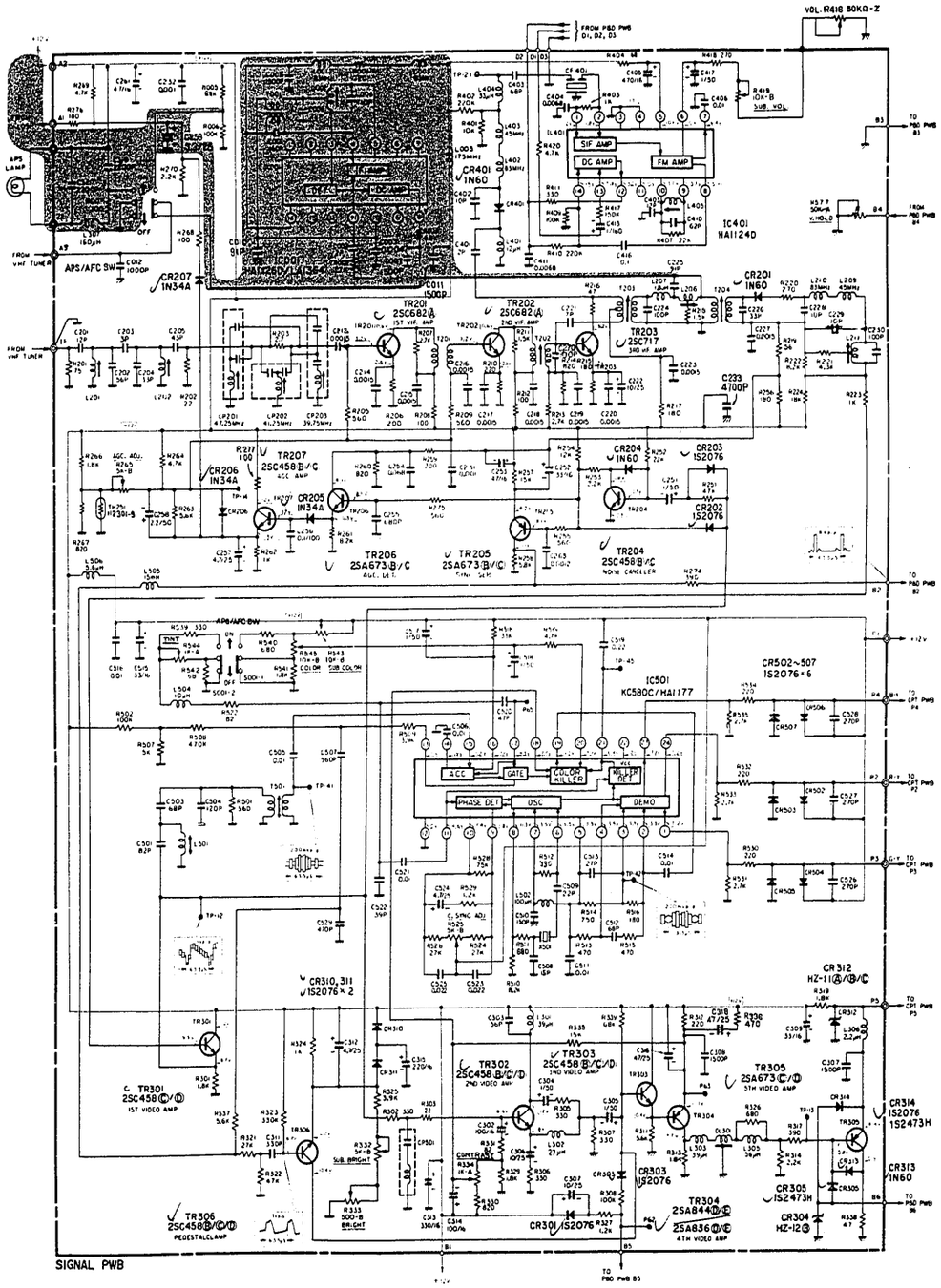
2. POWER/DEF BOARD





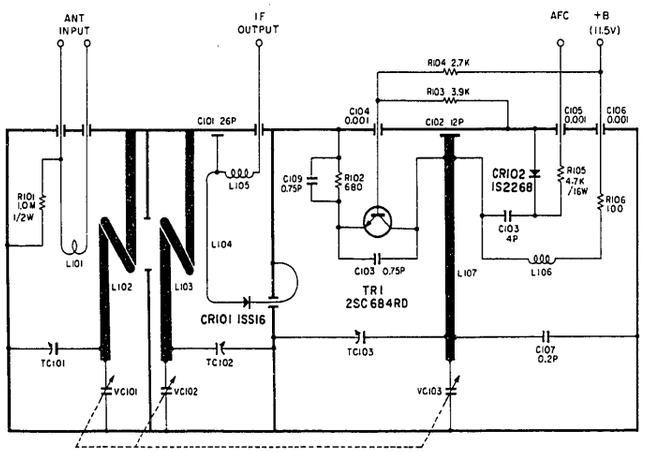
3. SIGNAL BOARD



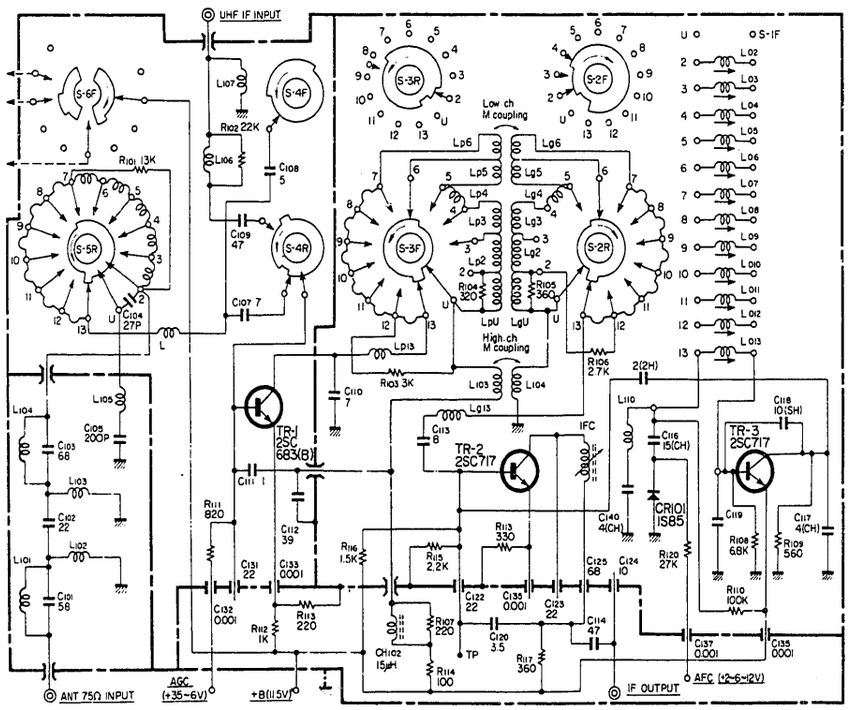


TUNER CIRCUIT SCHEMATIC DIAGRAMS

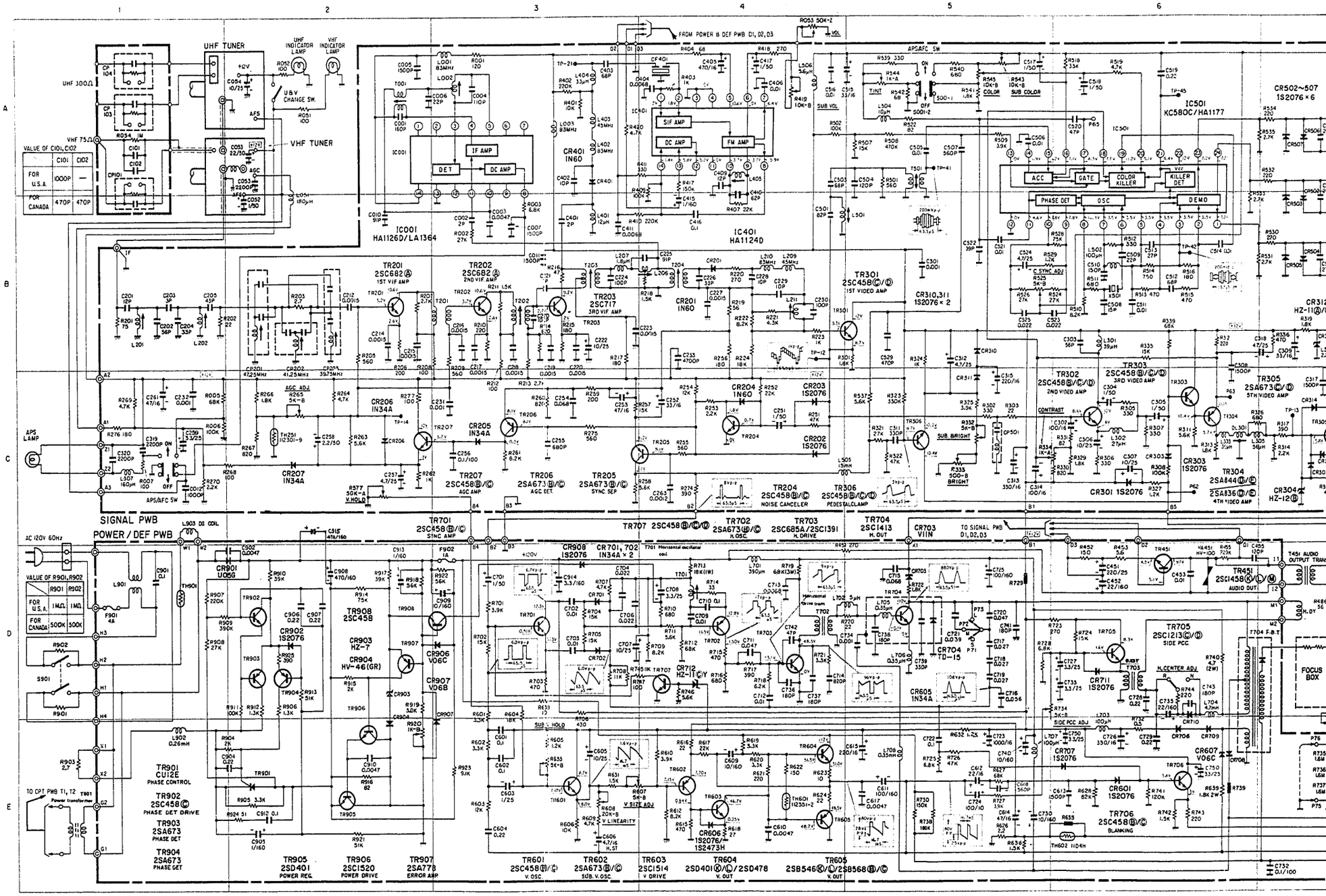
UHF TUNER (HU-354B)



VHF TUNER (HT-326F)



BASIC CIRCUIT SCHEMATIC DIAGRAM (CT-925, CT-945)

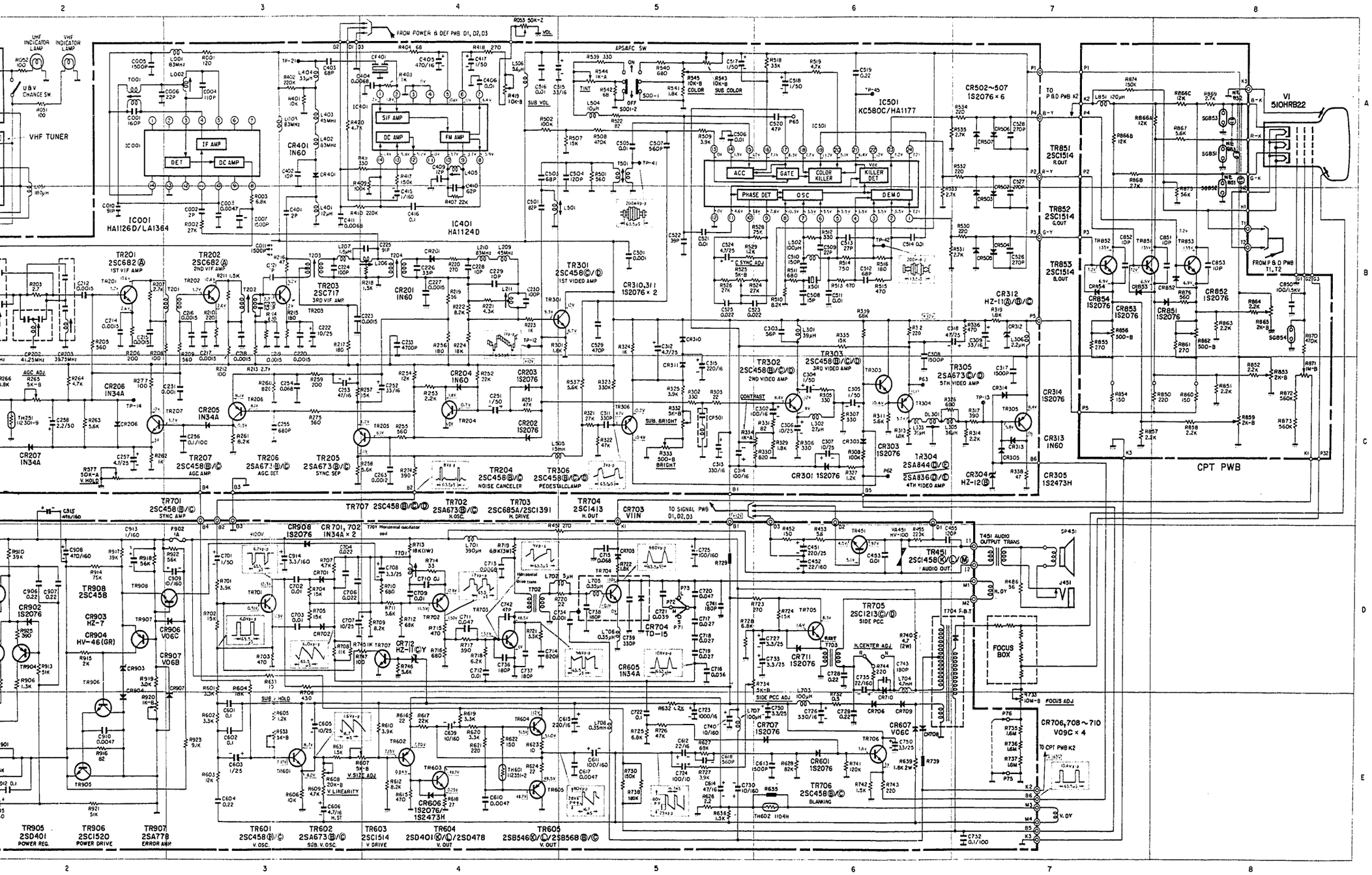


CAUTION: NO ATTEMPT SHALL BE MADE TO ADJUST OR DEFEAT R920.

BASIC CIRCUIT SCHEMATIC DIAGRAM (CT-925, CT-945)

PRODUCT SAFETY NOTE

SHADED COMPONENTS HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. BEFORE REPLACING ANY OF THESE COMPONENTS READ CAREFULLY THE PRODUCT SAFETY NOTICE OF THIS SERVICE MANUAL. DON'T DEGRADE THE SAFETY OF THE RECEIVER THROUGH IMPROPER SERVICING.



NO ATTEMPT SHALL BE MADE TO ADJUST OR DEFEAT R920.

REPLACEMENT PARTS LIST

NOTE: "PLACE" means the place of each part in the circuit diagram.

PRODUCT SAFETY NOTE – Components marked with a △ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION		
			CAPACITORS		
A2	C001	0249092	Ceramic	160pF ±5%	DC50WV
B3	C002	0248632	Ceramic	2pF ±0.25pF	DC50WV
B3	C003	0244109	Ceramic	0.0047μF ±10%	DC50WV
A3	C004	0249091	Ceramic	110pF ±5%	DC50WV
A3	C005	0244103	Ceramic	1,500pF ±10%	DC50WV
A2	C006	0248668	Ceramic	22pF ±5%	DC50WV
B3	C007	0244103	Ceramic	1,500pF ±10%	DC50WV
A2	C010	0248683	Ceramic	91pF ±5%	DC50WV
A3	C011	0244103	Ceramic	1,500pF ±10%	DC50WV
C1	C012	0244101	Ceramic	1000pF ±10%	DC50WV
A2	C051	0252621	Electrolytic	10μF	DC25WV
B2	C052	0252811	Electrolytic	1μF	DC50WV
A2	C053	0244105	Ceramic	0.0022μF ±10%	DC50WV
A2	C054	0252622	Electrolytic	22μF	DC25WV
B1	C201	0248662	Ceramic	12pF ±5%	DC50WV
B1	C202	0249026	Ceramic	56pF ±5%	DC50WV
B1	C203	0248633	Ceramic	3pF ±0.25pF	DC50WV
B1	C204	0249025	Ceramic	33pF ±5%	DC50WV
B1	C205	0248675	Ceramic	43pF ±5%	DC50WV
B2	C212	0244103	Ceramic	0.0015μF ±10%	DC50WV
B2	C214	0244103	Ceramic	0.0015μF ±10%	DC50WV
B2	C215	0244103	Ceramic	0.0015μF ±10%	DC50WV
B3	C216	0244103	Ceramic	0.0015μF ±10%	DC50WV
B3	C217	0244103	Ceramic	0.0015μF ±10%	DC50WV
B3	C218	0244103	Ceramic	0.0015μF ±10%	DC50WV
B3	C219	0244103	Ceramic	0.0015μF ±10%	DC50WV
B3	C220	0244103	Ceramic	0.0015μF ±10%	DC50WV
B3	C221	0248637	Ceramic	7pF ±0.25pF	DC50WV
B3	C222	0252621	Electrolytic	10μF	DC25WV
B3	C223	0244103	Ceramic	0.0015μF ±10%	DC50WV
B3	C224	0246594	Ceramic	100pF ±5%	DC50WV
B4	C225	0249042	Ceramic	91pF ±5%	DC50WV
B4	C226	0246582	Ceramic	33pF ±5%	DC50WV
B4	C227	0244103	Ceramic	0.0015μF ±10%	DC50WV
B4	C228	0248650	Ceramic	10pF±0.5pF	DC50WV
B4	C229	0248650	Ceramic	10pF±0.5pF	DC50WV
B4	C230	0248054	Ceramic	100pF ±5%	DC50WV
C3	C231	0244103	Ceramic	0.0015μF ±10%	DC50WV
C1	C232	0244103	Ceramic	0.0015μF ±10%	DC50WV
	C233	0244109	Ceramic	4700pF ±10%	DC50WV
C4	C251	0252811	Electrolytic	1μF	DC50WV
C4	C252	0252523	Electrolytic	33μF	DC16WV
C3	C253	0252525	Electrolytic	47μF	DC16WV
C3	C254	0275822	Polyester film	0.068μF ±10%	DC100WV
C3	C255	0244117	Ceramic	680pF ±10%	DC50WV
C3	C256	0274490	Polyester film	0.1μF ±10%	DC100WV
C2	C257	0252615	Electrolytic	4.7μF	DC25WV
C2	C258	0252817	Electrolytic	2.2μF	DC50WV
	C259	0252613	Electrolytic	3.3μF	DC25WV
C1	C261	0252525	Electrolytic	47μF	DC16WV
C4	C263	0244102	Ceramic	0.0012μF ±10%	DC50WV
	C270	0248684	Ceramic	100pF ±5%	DC50WV
B5	C301	0244103	Ceramic	0.0015μF ±10%	DC50WV
C6	C302	0252531	Electrolytic	100μF	DC16WV
B6	C303	0248678	Ceramic	56pF ±5%	DC50WV
C6	C304	0252811	Electrolytic	1μF	DC50WV
C6	C305	0252811	Electrolytic	1μF	DC50WV
C6	C306	0252621	Electrolytic	10μF	DC25WV
C6	C307	0252621	Electrolytic	10μF	DC25WV
B6	C308	0275023	Polyester film	1,500pF ±5%	DC50WV
B7	C309	0252523	Electrolytic	33μF	DC16WV
C5	C311	0248696	Ceramic	330pF ±5%	DC50WV
B5	C312	0252615	Electrolytic	4.7μF	DC25WV
C5	C313	0252563	Electrolytic	330μF	DC16WV
	C317	0275023	Polyester film	1500pF ±5%	DC50WV
C5	C314	0252531	Electrolytic	100μF	DC16WV
C7	C315	0252532	Electrolytic	220μF	DC16WV
	C318	0252625	Electrolytic	47μF	DC25WV
C1	C319	0244105	Ceramic	0.0022μF ±10%	DC50WV
C1	C320	0244105	Ceramic	0.0022μF ±10%	DC50WV
B3	C401	0248632	Ceramic	2pF ±0.25pF	DC50WV
A3	C402	0248650	Ceramic	10pF ±0.5pF	DC50WV
A3	C403	0248680	Ceramic	68pF ±5%	DC50WV
A4	C404	0244111	Ceramic	0.0068μF ±10%	DC50WV
A4	C405	0252565	Electrolytic	470μF	DC16WV
A4	C406	0275011	Polyester film	10,000pF ±10%	DC50WV
A4	C409	0246442	Ceramic	12pF ±5%	DC50WV
B4	C410	0246719	Ceramic	62pF ±5%	DC50WV
B3	C411	0244111	Ceramic	0.0068μF ±10%	DC50WV
B4	C415	0257535	Electrolytic	1μF	DC160WV
B4	C416	0276011	Polyester film	0.1μF ±10%	DC50WV
A4	C417	0252811	Electrolytic	1μF	DC50WV
D6	C451	0252662	Electrolytic	220μF	DC25WV
D6	C452	0258585	Electrolytic	22μF	DC160WV
D6	C453	0244541	Ceramic	0.01μF ±10%	DC500WV
D6	C455	0247896	Ceramic	120pF ±10%	DC500WV
B4	C501	0248682	Ceramic	82pF ±5%	DC50WV
A4	C503	0248680	Ceramic	68pF ±5%	DC50WV
A5	C504	0248686	Ceramic	120pF ±5%	DC50WV
A5	C505	0244171	Ceramic	0.01μF +80 −20 %	DC50WV
A5	C506	0244171	Ceramic	0.01μF +80 −20 %	DC50WV
A5	C507	0245698	Ceramic	560pF ±5%	DC50WV
B6	C508	0246444	Ceramic	15pF ±5%	DC50WV
B6	C509	0246448	Ceramic	22pF ±5%	DC50WV
B6	C510	0246598	Ceramic	150pF ±5%	DC50WV
B6	C511	0244171	Ceramic	0.01μF +80 −20 %	DC50WV
B6	C512	0248680	Ceramic	68pF ±5%	DC50WV
B6	C513	0248670	Ceramic	27pF ±5%	DC50WV
B6	C514	0244171	Ceramic	0.01μF +80 −20 %	DC50WV
B4	C515	0252523	Electrolytic	33μF	DC16WV
B4	C516	0244171	Ceramic	0.01μF +80 −20 %	DC50WV
A5	C517	0252811	Electrolytic	1μF	DC50WV
A6	C518	0252811	Electrolytic	1μF	DC50WV
A6	C519	0276013	Polyester film	0.22μF ±10%	DC50WV
A6	C520	0248676	Ceramic	47pF ±5%	DC50WV
B5	C521	0244171	Ceramic	0.01μF +80 −20 %	DC50WV
B5	C522	0248674	Ceramic	39pF ±5%	DC50WV
B5	C523	0275819	Polyester film	0.022μF ±10%	DC100WV
B5	C524	0252615	Electrolytic	4.7μF	DC25WV
B5	C525	0275819	Polyester film	0.022μF ±10%	DC100WV
B7	C526	0244136	Ceramic	270pF ±10%	DC50WV
B7	C527	0244136	Ceramic	270pF ±10%	DC50WV
A7	C528	0244136	Ceramic	270pF ±10%	DC50WV
E3	C601	0277025	Polyester film	0.1μF ±10%	DC50WV
E3	C602	0277025	Polyester film	0.1μF ±10%	DC50WV
E3	C603	0251087	Electrolytic	1μF	DC25WV
E3	C604	0275825	Polyester film	0.22μF ±10%	DC100WV
E3	C605	0251090	Electrolytic	10μF	DC25WV
E3	C606	0251075	Electrolytic	4.7μF	DC16WV
B7	C529	0248738	Ceramic	470pF ±10%	DC50WV
E4	C609	0258584	Electrolytic	10μF	DC160WV
E4	C610	0275815	Polyester film	0.0047μF ±10%	DC100WV
E5	C611	0258589	Electrolytic	100μF	DC160WV
E6	C612	0252522	Electrolytic	22μF	DC16WV
E6	C613	0244103	Ceramic	1,500pF ±10%	DC50WV
E5	C614	0252525	Electrolytic	47μF	DC16WV
E5	C615	0252532	Electrolytic	220μF	DC16WV
E5	C617	0244565	Ceramic	0.0047μF +100 −0 %	DC500WV
E5	C618	0244115	Ceramic	560pF ±10%	DC50WV
D3	C701	0252811	Electrolytic	1μF	DC50WV
D3	C702	0277013	Polyester film	0.01μF ±10%	DC50WV
D3	C703	0277013	Polyester film	0.01μF ±10%	DC50WV
D3	C704	0277017	Polyester film	0.022μF ±10%	DC50WV
D3	C706	0277017	Polyester film	0.022μF ±10%	DC50WV
D3	C707	0252621	Electolytic	10μF	DC25WV
D4	C708	0252613	Electrolytic	3.3μF	DC25WV
D4△	C709	0275021	Polyester film	0.01μF ±5%	DC50WV
D4△	C710	0299926	Polypropylene	0.1μF ±10%	DC200WV
D4	C711	0277021	Polyester film	0.047μF ±10%	DC50WV
D4	C712	0277013	Polyester film	0.01μF ±10%	DC50WV
D4	C713	0299912	Polypropylene	0.0068μF ±10%	DC200WV
D4	C714	0243512	Ceramic	820pF ±10%	DC500WV
D5△	C715	0215296	Paper	0.068μF ±10%	DC1000WV
D5△	C716	0299923	Polypropylene	0.056μF ±10%	DC200WV
D5△	C717	0299631	Polypropylene	0.027μF ±10%	DC630WV
D5△	C718	0299631	Polypropylene	0.027μF ±10%	DC630WV
D5△	C719	0299631	Polypropylene	0.027μF ±10%	DC630WV
D5△	C720	0299922	Polypropylene	0.047μF ±10%	DC200WV
D5△	C721	0299921	Polypropylene	0.039μF ±10%	DC200WV
E5	C722	0277025	Polyester film	0.1μF ±10%	DC50WV
E5	C723	0252536	Electrolytic	1,000μF	DC16WV
E5	C724	0252331	Electrolytic	100μF	DC10WV
D5	C725	0258589	Electrolytic	100μF	DC160WV
E6	C726	0252563	Electrolytic	330μF	DC16WV
D6	C727	0251101	Electrolytic	3.3μF	DC25WV
D6△	C728	0299607	Polypropylene	0.22μF ±10%	DC400WV
E6△	C729	0299607	Polypropylene	0.22μF ±10%	DC400WV
E5	C730	0258584	Electrolytic	10μF	DC160WV
E7	C732	0279859	Polyester film	0.1μF ±10%	DC100WV
D6	C733	0251101	Electrolytic	3.3μF	DC25WV
D5	C734	0244436	Ceramic	0.001μF ±20%	DC1KWV
D6	C735	0258585	Electrolytic	22μF	DC160WV
D4	C736	0243504	Ceramic	180pF ±10%	DC500WV
D4	C737	0243504	Ceramic	180pF ±10%	DC500WV
D5	C738	0243504	Ceramic	180pF ±10%	DC500WV
D4	C742	0247886	Ceramic	47pF ±10%	DC500WV
D5△	C739	0243837	Ceramic	330pF ±10%	DC2.5KWV
E5	C740	0258584	Electrolytic	10μF	DC160WV
D5	C743	0243504	Ceramic	180pF ±10%	DC500WV
E6	C750	0252613	Electrolytic	3.3μF	DC25WV
B8	C850	0243425	Ceramic	100pF ±10%	DC1600WV
B8	C851	0247820	Ceramic	10pF ±0.5pF	DC500WV
B7	C852	0247820	Ceramic	10pF ±0.5pF	DC500WV
B8	C853	0247820	Ceramic	10pF ±0.5pF	DC500WV
	△C741	0243839	Ceramic	180pF ±10%	DC2.5KWV
D1△	C901	0274738	Polyester film	0.1μF ±20%	DC250WV
D1△	C902	0244565	Ceramic	0.0047μF +100 −0 %	DC500WV
E1	C904	0276013	Polyester film	0.22μF ±10%	DC50WV
E2	C905	0257535	Electrolytic	1μF	DC160WV
D2	C906	0276013	Polyester film	0.22μF ±10%	DC50WV
D2	C907	0276013	Polyester film	0.22μF ±10%	DC50WV
D2△	C908	0259826	Electrolytic	470μF	DC160WV
D3	C909	0258584	Electrolytic	10μF	DC160WV
E2	C910	0244565	Ceramic	0.0047μF +100 −0 %	DC500WV
E2	C912	0299926	Polypropylene	0.1μF ±10%	DC200WV
D2	C913	0257535	Electrolytic	1μF	DC160WV
D3	C914	0257536	Electrolytic	3.3μF	DC160WV
D2△	C915	0259822	Electrolytic	470μF	DC160WV
			RESISTORS		
A3	R001	0114133	Carbon film	120Ω ±5%	SRD¼P
B3	R002	0114211	Carbon film	27KΩ ±5%	SRD¼P
B3	R003	0114181	Carbon film	6.8KΩ ±5%	SRD¼P
C1	R005	0114221	Carbon film	68KΩ ±5%	SRD¼P
C1	R006	0114281	Carbon film	100KΩ ±5%	SRD¼P
C1	R007	0114131	Carbon film	100Ω ±5%	SRD¼P
A2	R051	0114057	Carbon film	47Ω ±5%	SRD¼P
A2	R052	0114057	Carbon film	47Ω ±5%	SRD¼P
B1	R201	0114062	Carbon film	75Ω ±5%	SRD¼P
B1	R202	0114049	Carbon film	22Ω ±5%	SRD¼P
B2	R203	0114003	Carbon film	2.7Ω ±5%	SRD¼P
B2	R205	0114149	Carbon film	560Ω ±5%	SRD¼P
B2	R206	0114138	Carbon film	200Ω ±5%	SRD¼P
B2	R207	0114171	Carbon film	2.7KΩ ±5%	SRD¼P
B3	R208	0114131	Carbon film	100Ω ±5%	SRD¼P
B3	R209	0114149	Carbon film	560Ω ±5%	SRD¼P
B3	R210	0114139	Carbon film	220Ω ±5%	SRD¼P
B3	R211	0114165	Carbon film	1.5KΩ ±5%	SRD¼P
B3	R212	0114131	Carbon film	100Ω ±5%	SRD¼P
B3	R213	0114171	Carbon film	2.7KΩ ±5%	SRD¼P
B3	R214	0114153	Carbon film	820Ω ±5%	SRD¼P
B3	R215	0114137	Carbon film	180Ω ±5%	SRD¼P
B3	R216	0114057	Carbon film	470Ω ±5%	SRD¼P
B3	R217	0114137	Carbon film	180Ω ±5%	SRD¼P
B4	R218	0114165	Carbon film	1.5KΩ ±5%	SRD¼P

PRODUCT SAFETY NOTE — Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION			
B4	R219	0114059	Carbon film	56Ω	±5%	SRD¼P
B4	R220	0114141	Carbon film	270Ω	±5%	SRD¼P
B4	R221	0114176	Carbon film	4.3KΩ	±5%	SRD¼P
B4	R222	0114183	Carbon film	8.2KΩ	±5%	SRD¼P
B4	R223	0114161	Carbon film	1KΩ	±5%	SRD¼P
B4	R224	0114207	Carbon film	18KΩ	±5%	SRD¼P
C4	R251	0114217	Carbon film	47KΩ	±5%	SRD¼P
C4	R252	0114209	Carbon film	22KΩ	±5%	SRD¼P
C4	R253	0114169	Carbon film	2.2KΩ	±5%	SRD¼P
C4	R254	0114203	Carbon film	12KΩ	±5%	SRD¼P
C4	R255	0137569	Carbon film	560Ω	±5%	SRD½SD
B4	R256	0114137	Carbon film	180Ω	±5%	SRD¼P
C3	R257	0114205	Carbon film	15KΩ	±5%	SRD¼P
C3	R258	0114179	Carbon film	5.6KΩ	±5%	SRD¼P
C3	R259	0114138	Carbon film	200Ω	±5%	SRD¼P
C3	R260	0114153	Carbon film	820Ω	±5%	SRD¼P
C3	R261	0114183	Carbon film	8.2KΩ	±5%	SRD¼P
C2	R262	0114161	Carbon film	1KΩ	±5%	SRD¼P
C2	R263	0114179	Carbon film	5.6KΩ	±5%	SRD¼P
C2	R264	0114177	Carbon film	4.7KΩ	±5%	SRD¼P
C2	R265	0151187	Control	5KΩ – B		AGC
C2	R266	0114167	Carbon film	1.8KΩ	±5%	SRD¼P
C2	R267	0114153	Carbon film	820Ω	±5%	SRD¼P
C2	R268	0114131	Carbon film	100Ω	±5%	SRD¼P
C1	R269	0114177	Carbon film	4.7KΩ	±5%	SRD¼P
C1	R270	0114169	Carbon film	2.2KΩ	±5%	SRD¼P
C4	R274	0114145	Carbon film	390Ω	±5%	SRD¼P
C3	R275	0137569	Carbon film	560Ω	±5%	SRD½SD
C1	R276	0114137	Carbon film	180Ω	±5%	SRD¼P
B5	R301	0114167	Carbon film	1.8KΩ	±5%	SRD¼P
C2	R277	0114131	Carbon film	100Ω	±5%	SRD¼P
C5	R302	0114143	Carbon film	330Ω	±5%	SRD¼P
C5	R303	0114049	Carbon film	22Ω	±5%	SRD¼P
C6	R305	0114143	Carbon film	330Ω	±5%	SRD¼P
C6	R306	0114143	Carbon film	330Ω	±5%	SRD¼P
C6	R307	0114143	Carbon film	330Ω	±5%	SRD¼P
C6 ⚠	R308	0114281	Carbon film	100KΩ	±5%	SRD¼P
C6	R311	0114179	Carbon film	5.6KΩ	±5%	SRD¼P
B6	R312	0114139	Carbon film	220Ω	±5%	SRD¼P
C6	R313	0137607	Carbon film	1.8KΩ	±5%	SRD½SD
C7	R314	0114169	Carbon film	2.2KΩ	±5%	SRD¼P
C7	R317	0114145	Carbon film	390Ω	±5%	SRD¼P
B7	R319	0114167	Carbon film	1.8KΩ	±5%	SRD¼P
C5	R321	0114211	Carbon film	27KΩ	±5%	SRD¼P
C5	R322	0114217	Carbon film	47KΩ	±5%	SRD¼P
C5	R323	0114293	Carbon film	330KΩ	±5%	SRD¼P
B5	R324	0114161	Carbon film	1KΩ	±5%	SRD¼P
C5	R325	0114175	Carbon film	3.9KΩ	±5%	SRD¼P
C6	R326	0114151	Carbon film	680Ω	±5%	SRD¼P
C6	R327	0114163	Carbon film	1.2KΩ	±5%	SRD¼P
C6	R329	0114167	Carbon film	1.8KΩ	±5%	SRD¼P
C5	R330	0114153	Carbon film	820Ω	±5%	SRD¼P
C6	R331	0114063	Carbon film	82Ω	±5%	SRD¼P
C5 ⚠	R332	0151289	Control	5KΩ – B		SUB.BRIGHT
C5 ⚠	R333	0159232	Control	500Ω – B		BRIGHT

PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION			
C5⚠	R334	0159231	Control	1KΩ – A		PICTURE
B6	R335	0114205	Carbon film	15KΩ	±5%	SRD¼P
C7	R338	0114057	Carbon film	47Ω	±5%	SRD¼P
B6	R339	0114221	Carbon film	68KΩ	±5%	SRD¼P
A3	R401	0114201	Carbon film	10KΩ	±5%	SRD¼P
A3	R402	0114289	Carbon film	220KΩ	±5%	SRD¼P
A4	R403	0137601	Carbon film	1KΩ	±5%	SRD½SD
A4	R404	0114061	Carbon film	68Ω	±5%	SRD¼P
B4	R407	0114209	Carbon film	22KΩ	±5%	SRD¼P
A4	R409	0114281	Carbon film	100KΩ	±5%	SRD¼P
B3	R410	0114289	Carbon film	220KΩ	±5%	SRD¼P
A3	R411	0114143	Carbon film	330Ω	±5%	SRD¼P
A4	R417	0114285	Carbon film	150KΩ	±5%	SRD¼P
A4	R418	0137561	Carbon film	270Ω	±5%	SRD½SD
B6	R336	0137567	Carbon film	470Ω	±5%	SRD½SD
A4	R419	0151264	Control	10KΩ-B		SUB.VOL.
A3	R420	0114177	Carbon film	4.7KΩ	±5%	SRD¼P
D4	R451	0110131	Metal oxide fil	270Ω	±5%	RD1PB
D6	R452	0134045	Composition	150Ω	±5%	RC½GF
D6	R453	0114011	Carbon film	5.6Ω	±5%	SRD¼P
D6	R455	0114289	Carbon film	220KΩ	±5%	SRD¼P
A5	R501	0114149	Carbon film	560Ω	±5%	SRD¼P
A4	R502	0114281	Carbon film	100KΩ	±5%	SRD¼P
A5	R507	0114205	Carbon film	15KΩ	±5%	SRD¼P
A5	R508	0114297	Carbon film	470KΩ	±5%	SRD¼P
A5	R509	0114175	Carbon film	3.9KΩ	±5%	SRD¼P
B6	R510	0114183	Carbon film	8.2KΩ	±5%	SRD¼P
B6	R511	0114151	Carbon film	680Ω	±5%	SRD¼P
B6	R512	0114143	Carbon film	330Ω	±5%	SRD¼P
B6	R513	0114147	Carbon film	470Ω	±5%	SRD¼P
B6	R514	0114152	Carbon film	750Ω	±5%	SRD¼P
B6	R515	0114147	Carbon film	470Ω	5%	SRD¼P
B6	R516	0114137	Carbon film	180Ω	±5%	SRD¼P
A6	R518	0137663	Carbon film	33KΩ	±5%	SRD½SD
A6	R519	0114177	Carbon film	4.7KΩ	±5%	SRD¼P
A5	R522	0114063	Carbon film	82Ω	± 5%	SRD¼P
B5	R524	0114211	Carbon film	27KΩ	±5%	SRD¼P
B5	R525	0151187	Control	5KΩ – B		C. SYNC
B5	R526	0114211	Carbon film	27KΩ	±5%	SRD¼P
B5	R528	0114222	Carbon film	75KΩ	±5%	SRD¼P
B5	R529	0114163	Carbon film	1.2KΩ	±5%	SRD¼P
B7	R530	0114139	Carbon film	220Ω	±5%	SRD¼P
B6	R531	0114171	Carbon film	2.7KΩ	±5%	SRD¼P
A7	R532	0114139	Carbon film	220Ω	±5%	SRD¼P
B6	R533	0114171	Carbon film	2.7KΩ	±5%	SRD¼P
A7	R534	0114139	Carbon film	220Ω	±5%	SRD¼P
A6	R535	0114171	Carbon film	2.7KΩ	±5%	SRD¼P
C5	R537	0114179	Carbon film	5.6KΩ	±5%	SRD¼P
A5	R539	0114143	Carbon film	330Ω	±5%	SRD¼P
A5	R540	0114151	Carbon film	680Ω	±5%	SRD¼P
A5	R541	0114167	Carbon film	1.8KΩ	±5%	SRD¼P
A5	R542	0114061	Carbon film	68Ω	±5%	SRD¼P
A5⚠	R543	0151290	Control	10KΩ-B		SUBCOLOR

PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION			
A5	R544	0159231	Control	1KΩ – A		Tint
A5⚠	R545	0159233	Control	10KΩ – B		COLOR
C2⚠	R577	0159237	Control	50KΩ – A		V.HOLD
D3	R601	0114173	Carbon film	3.3KΩ	±5%	SRD¼P
E3	R602	0114173	Carbon film	3.3KΩ	±5%	SRD¼P
E3	R603	0114203	Carbon film	12KΩ	±5%	SRD¼P
D3	R604	0114207	Carbon film	18KΩ	±5%	SRD¼P
E3	R605	0114163	Carbon film	1,200Ω	±5%	SRD¼P
E3	R606	0114201	Carbon film	10KΩ	±5%	SRD¼P
E3⚠	R607	0151254	Control	5KΩ – B		V.SIZE
E3	R608	0151255	Control	20KΩ – B		V.LINE
E3	R609	0114183	Carbon film	8.2KΩ	±5%	SRD¼P
E4	R610	0114175	Carbon film	3.9KΩ	±5%	SRD¼P
E4	R612	0114183	Carbon film	8.2KΩ	±5%	SRD¼P
E4	R615	0114147	Carbon film	470Ω	±5%	SRD¼P
E4	R616	0114049	Carbon film	22Ω	± 5%	SRD¼P
E4	R617	0114209	Carbon film	22KΩ	± 5%	SRD¼P
E4	R618	0114051	Carbon film	27Ω	± 5%	SRD¼P
E4	R619	0110157	Metal oxide film	3.3KΩ	± 5%	RD1PB
E4	R620	0110157	Metal oxide film	3.3KΩ	± 5%	RD1PB
E4	R621	0114139	Carbon film	220Ω	± 5%	SRD¼P
E4	R622	0114135	Carbon film	150Ω	± 5%	SRD¼P
E4	R623	0134017	Composition	10Ω	± 5%	RC½GF
E4	R624	0134024	Composition	22Ω	± 5%	RC½GF
E5	R626	0114001	Carbom film	2.2Ω	± 5%	SRD¼P
E5	R627	0131743	Composition	68KΩ	± 10%	RC¼GF
E6	R628	0131744	Composition	82KΩ	± 10%	RC¼GF
E5	R631	0114165	Carbon film	1.5KΩ	± 5%	SRD¼P
E5⚠	R632	0114163	Carbon film	1.2KΩ	± 5%	SRD¼P
E3⚠	R633	0151254	Control	5KΩ – B		SUB.V.HOLD
E6⚠	R635	0119508	Metal oxide film	56Ω	±5%	RN¼P
E4	R638	0119507	Metal oxide film	10Ω	±5%	RN¼P
E5⚠	R639	0110251	Metal oxide film	1.8KΩ	±5%	RD2PB
D3	R701	0114175	Carbon film	3.9KΩ	± 5%	SRD¼P
D3	R702	0114205	Carbon film	15KΩ	± 5%	SRD¼P
D3	R703	0114147	Carbon film	470Ω	± 5%	SRD¼P
D3	R704	0114205	Carbon film	15KΩ	± 5%	SRD¼P
D3	R705	0114205	Carbon film	15KΩ	± 5%	SRD¼P
D3	R706	0114146	Carbon film	430Ω	± 5%	SRD¼P
D3	R707	0114177	Carbon film	4.7KΩ	± 5%	SRD¼P
D3	R708	0114202	Carbon film	11KΩ	± 5%	SRD¼P
D4	R709	0134103	Composition	8.2KΩ	± 5%	RC½GF
D4	R710	0114151	Carbon film	680Ω	± 5%	SRD¼P
D4	R711	0114179	Carbon film	5.6KΩ	± 5%	SRD¼P
D4	R712	0114221	Carbon film	68KΩ	± 5%	SRD¼P
D4⚠	R713	0110175	Metal oxide film	18KΩ	± 5%	RD1PB
D4	R714	0114053	Carbon film	33Ω	± 5%	SRD¼P
D4	R715	0114147	Carbon film	470Ω	± 5%	SRD¼P
D4	R716	0114151	Carbon film	680Ω	± 5%	SRD¼P
D4	R717	0114145	Carbon film	390Ω	± 5%	SRD¼P
D4	R718	0134100	Composition	6.2KΩ	± 5%	RC½GF
D4⚠	R719	0110365	Metal oxide film	6.8KΩ	± 5%	RD3PB
D4	R720	0131579	Composition	22Ω	± 5%	RC¼GF
D4	R721	0134379	Composition	3.3KΩ	± 10%	RC½GF

PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION			
D5⚠	R722	0110151	Metal oxide film	1.8KΩ	± 5%	RD1PB
D5	R723	0134366	Composition	270Ω	± 10%	RC½GF
D6	R724	0114205	Carbon film	15KΩ	± 5%	SRD¼P
E5	R725	0131701	Composition	6.8KΩ	± 10%	RC½GF
E5	R726	0131741	Composition	47KΩ	± 10%	RC½GF
E5	R727	0137615	Carbon film	3.9KΩ	± 5%	SRD½SD
D5	R728	0114181	Carbon film	6.8KΩ	± 5%	SRD¼P
D5⚠	R729	0119505	Metal oxide film	2.2Ω	± 5%	RN¼P
E5⚠	R730	0114285	Carbon film	150KΩ	± 5%	SRD¼P
E6⚠	R732	0119504	Metal oxide film	0.5Ω	± 5%	RN¼P
E7⚠	R733	0153258	Control	10MΩ– B		FOCUS
D5	R734	0151187	Control	5KΩ – B		PCC.ADJ.
E7⚠	R735	0134207	Composition	1.6MΩ	± 5%	RC½GF
E7⚠	R736	0134207	Composition	1.6MΩ	± 5%	RC½GF
E7⚠	R737	0134207	Composition	1.6MΩ	± 5%	RC½GF
E5⚠	R738	0114287	Carbon film	180KΩ	± 5%	SRD¼P
E6⚠	R739	0119505	Metal oxide film	2.2Ω	± 5%	RN¼P
D6⚠	R740	0190022	Wire Wound	4.7Ω	± 10%	RG2P
E6	R741	0131802	Composition	120KΩ	± 10%	RC¼GF
E6	R742	0131671	Composition	1.5KΩ	± 10%	RC¼GF
E6	R743	0137559	Carbon film	220Ω	± 5%	SRD½SD
D6	R744	0110129	Metal oxide film	220Ω	± 5%	RD1PB
D4⚠	R746	0114179	Carbon film	5.6KΩ	± 5%	SRD¼P
D4⚠	R747	0114131	Carbon film	100Ω	± 5%	SRD¼P
C8	R850	0114139	Carbon film	220Ω	± 5%	SRD¼P
C8	R851	0114169	Carbon film	2.2KΩ	± 5%	SRD¼P
C8	R852	0114169	Carbon film	2.2KΩ	± 5%	SRD¼P
C8⚠	R853	0151288	Control	2KΩ–B		RV-16
C7	R854	0114135	Carbon film	150Ω	± 5%	SRD¼P
B7	R855	0114141	Carbon film	270Ω	± 5%	SRD¼P
D6	R745	0114202	Carbon film	11KΩ	± 5%	SRD¼P
B7⚠	R856	0151286	Control	500Ω–B		RV-16
C7	R857	0114169	Carbon film	2.2KΩ	± 5%	SRD¼P
C8	R858	0114169	Carbon film	2.2KΩ	± 5%	SRD¼P
C8⚠	R859	0151288	Control	2KΩ–B		RV-16
C8	R860	0114135	Carbon film	150Ω	± 5%	SRD¼P
B8	R861	0114141	Carbon film	270Ω	± 5%	SRD¼P
B8⚠	R862	0151286	Control	500Ω–B		RV-16
B8	R863	0114169	Carbon film	2.2KΩ	± 5%	SRD¼P
B8	R864	0114169	Carbon film	2.2KΩ	± 5%	SRD¼P
B8⚠	R865	0151288	Control	2KΩ–B		RV-16
A8⚠	R866	2370071	Resistor block			
A8	R867	0134099	Composition	5.6KΩ	± 5%	RC½GF
A7	R868	0134091	Composition	2.7KΩ	± 5%	RC½GF
A8	R869	0134091	Composition	2.7KΩ	± 5%	RC½GF
B8	R870	0134177	Composition	470KΩ	± 5%	RC½GF
C8⚠	R871	0153223	Control	1M Ω– B		RV-24
C8	R872	0134179	Composition	560KΩ	± 5%	RC½GF
C8	R873	0134179	Composition	560KΩ	± 5%	RC½GF
A7	R874	0131755	Composition	150KΩ	± 5%	RC¼GF
A8	R875	0131727	Composition	56KΩ	± 5%	RC¼GF
B8	R876	0114149	Carbon film	560Ω	± 5%	SRD¼P
D1⚠	R901	0139007	Composition	1MΩ	± 10%	RC½GF
D1⚠	R902	0139007	Composition	1MΩ	± 10%	RC½GF

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PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION			
E1⚠	R903	0142239	Wire wound	2.7Ω	±5%	RWH20
E1	R904	0114168	Carbon film	2KΩ	±5%	SRD¼P
E2⚠	R905	0110157	Metal oxide film	3.3KΩ	±5%	
D2	R906	0114164	Carbon film	1.3KΩ	±5%	SRD¼P
D1	R907	0114289	Carbon film	220KΩ	±5%	SRD¼P
D1	R908	0114211	Carbon film	27KΩ	±5%	SRD¼P
D1	R909	0134175	Composition	390KΩ	±5%	RC½GF
D2	R910	0134135	Composition	39KΩ	±5%	RC½GF
D2	R911	0114281	Carbon film	100KΩ	±5%	SRD¼P
D2	R912	0114164	Carbon film	1.3KΩ	±5%	SRD¼P
D2	R913	0114218	Carbon film	51KΩ	±5%	SRD¼P
D2	R914	0114222	Carbon film	75KΩ	±5%	SRD¼P
D2	R915	0114168	Carbon film	2KΩ	±5%	SRD¼P
E2	R916	0110319	Metal oxide film	82Ω	±5%	RD3PB
D2	R917	0134135	Composition	39KΩ	±5%	RC½GF
D2	R925	0114145	Carbon film	390Ω	±5%	SRD¼P
D2⚠	R918	0114219	Carbon film	56KΩ	±5%	SRD¼P
D2⚠	R919	0137612	Carbon film	3KΩ	±5%	SRD¼SD
E2⚠	R920	0151185	Control	1KΩ — B		+B
E2	R921	0114218	Carbon film	51KΩ	±5%	SRD¼P
D3	R922	0137669	Carbon film	56KΩ	±5%	SRD¼SD
E3	R923	0114184	Carbon film	9.1KΩ	±5%	SRD¼P
E2	R924	0137534	Carbon film	51Ω	±5%	SRD¼SD

SEMICONDUCTORS

B2	TR201	0573474	Silicon	2SC682 Ⓐ
B3	TR202	0573474	Silicon	2SC682 Ⓐ
B3	TR203	2320141	Silicon	2SC717
C4	TR204	2320591	Silicon	2SC458 Ⓑ / Ⓒ
A4	TR205	2320631	Silicon	2SA673 Ⓑ / Ⓒ
C3	TR206	2320631	Silicon	2SA673 Ⓑ / Ⓒ
C2	TR207	2320591	Silicon	2SC458 Ⓑ / Ⓒ
B5	TR301	2320596	Silicon	2SC458 Ⓒ / Ⓓ
C6	TR302	2320598	Silicon	2SC458 Ⓑ / Ⓒ / Ⓓ
C6	TR303	2320598	Silicon	2SC458 Ⓑ / Ⓒ / Ⓓ
C6	TR304	2321351	Silicon	2SA836 Ⓓ / Ⓔ, 2SA844 Ⓓ / Ⓔ
C7	TR305	2320637	Silicon	2SA673 Ⓒ / Ⓓ
C5	TR306	2320598	Silicon	2SC458 Ⓑ / Ⓒ / Ⓓ
D6⚠	TR451	2320994	Silicon	2SC1456 Ⓚ / Ⓛ / Ⓜ
E3	TR601	2320591	Silicon	2SC458 Ⓑ / Ⓒ
E4	TR602	2320631	Silicon	2SA673 Ⓑ / Ⓒ
E4	TR603	2321221	Silicon	2SC1514
E4⚠	TR604	2321302	Silicon	2SD401
E4⚠	TR605	2321381	Silicon	2SB546 Ⓚ / Ⓛ
D3	TR701	2320591	Silicon	2SC458 Ⓑ / Ⓒ
D4⚠	TR702	2320631	Silicon	2SA673 Ⓑ / Ⓒ
D4⚠	TR703	2321403	Silicon	2SC1391VL
D5⚠	TR704	2320961	Silicon	2SC1413
D6	TR705	2320647	Silicon	2SC1213 Ⓒ / Ⓓ
E6	TR706	2320591	Silicon	2SC458 Ⓑ / Ⓒ
D4⚠	TR707	2320598	Silicon	2SC458 Ⓑ / Ⓒ / Ⓓ
B7⚠	TR851	2321221	Silicon	2SC1514
B7⚠	TR852	2321221	Silicon	2SC1514
B8⚠	TR853	2321221	Silicon	2SC1514

PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION	
E2⚠	TR901	2321264	Silicon	CU-12E
D2⚠	TR902	2320596	Silicon	2SC458 Ⓒ / Ⓓ
D2⚠	TR903	2320637	Silicon	2SA673 Ⓒ / Ⓓ
D2⚠	TR904	2320637	Silicon	2SA673 Ⓒ / Ⓓ
E2⚠	TR905	2321302	Silicon	2SD401
E2⚠	TR906	2321095	Silicon	2SC1520
D2⚠	TR907	2321111	Silicon	2SA778A Ⓚ
D2⚠	TR908	2320598	Silicon	2SC458 Ⓑ / Ⓒ / Ⓓ
B4	CR201	0575005	Germanium	1N60
C4	CR202	2331351	Silicon	IS2076/IS2473H
C4	CR203	2331351	Silicon	IS2076/IS2473H
C4	CR204	0575005	Germanium	IN60
C3	CR205	0575001	Germanium	IN34A
C2	CR206	0575001	Germanium	IN34A
C2	CR207	0575001	Germanium	IN34A
C6	CR301	2331351	Silicon	IS2076/IS2473H
C6	CR303	2331351	Silicon	IS2076/IS2473H
C7	CR304	2331152	Silicon	HZ-12 Ⓑ
C7	CR305	2331351	Silicon	IS2076/IS2473H
B5	CR310	2331351	Silicon	IS2076/IS2473H
C5	CR311	2331351	Silicon	IS2076/IS2473H
B7	CR312	2331161	Silicon	HZ11 Ⓐ / Ⓑ / Ⓒ
C7	CR313	0575005	Germanium	IN60
C7	CR314	2331351	Silicon	IS2076/IS2473H
A3	CR401	0575005	Germanium	IN60
B7	CR502	2331351	Silicon	IS2076/IS2473H
B7	CR503	2331351	Silicon	IS2076/IS2473H
B7	CR504	2331351	Silicon	IS2076/IS2473H
B7	CR505	2331351	Silicon	IS2076/IS2473H
A7	CR506	2331351	Silicon	IS2076/IS2473H
A7	CR507	2331351	Silicon	IS2076/IS2473H
E6	CR601	2331351	Silicon	IS2076/IS2473H
E4	CR606	2331351	Silicon	IS2076/IS2473H
E6	CR607	2330251	Silicon	V06C
D3	CR701	0575001	Germanium	IN34A
D3	CR702	0575001	Germanium	IN34A
D5⚠	CR703	2330564	Silicon	V11N
D5⚠	CR704	2331381	Silicon	TD-15
E6⚠	CR706	2330551	Silicon	V09C
E6	CR707	2331351	Silicon	IS2076/IS2473H
E6⚠	CR708	2330551	Silicon	V09C
E6⚠	CR709	2330551	Silicon	V09C
D6⚠	CR710	2330551	Silicon	V09C
D6	CR711	2331351	Silicon	IS2076/IS2473H
D4⚠	CR712	2331174	Silicon	HZ-11 Ⓒ -Y
B8	CR851	2331351	Silicon	IS2076/IS2473H
	CR853	2331351	Silicon	IS2076/IS2473H
B8	CR852	2331351	Silicon	IS2076/IS2473H
	CR854	2331351	Silicon	IS2076/IS2473H
D1⚠	CR901	2330773	Silicon	U05G
D2	CR902	2330351	Silicon	IS2076/IS2473H
D2⚠	CR903	2330631	Silicon	HZ7 Ⓐ

PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION	
E2⚠	CR904	2330612	Silicon	HV-46GR
D3	CR906	2330251	Silicon	V06C
E3	CR907	2330254	Silicon	V06B
⚠	CR908	2331351	Silicon	IS2076/IS2473H
C2	TH251	2340371	Thermistor	112301-9
E4	TH601	2340351	Thermistor	112351-2
E6	TH602	2340341	Thermistor	11D4H
D1⚠	TH901	2340263	Thermistor	PTC thermistor
D6	VA451	2340251	Silicon	HV-100/319D14H2

IC

A3	IC001	2360401	HA1126D
A4	IC401	2360391	HA1124D
A6	IC501	2360431	KC580C1/HA11580

TRANSFORMERS

A2	T001	2141081	AFS tuning transformer
B3	T201	2141144	IFT 58 MHZ
B3	T202	2140143	IFT 58 MHZ
B3	T203	2141355	M10X type of transformer
B4	T204	2141354	M10X type of transformer
D7⚠	T451	2250281	Audio output transformer
A5	T501	2141533	Band pass transformer
D4⚠	T701	2161051	Horizontal oscillator coil
D4⚠	T702	2260021	Horizontal drive transformer
D6⚠	T703	2270185	Pct (pincushion)-H assembly
D6⚠	T704	2431053	Flyback transformer
E1⚠	T901	2211471	Power transformer

COILS

A3	L001	2121203	Filter coil 83 MHZ	
A3	L002	2141455	Mold IFT	
A3	L003	2121201	Filter coil 175 MHZ	
A2	L051	2121713	Peaking coil 180μH	
B1	L201	2140885	IF transformer	
B1	L202	2140885	IF transformer	
B4	L206	2141454	Mold IF transformer	
B3	L207	2141562	Fixed inductor	
B4	L209	2121204	Filter coil	45 MHZ
B4	L210	2121203	Filter coil	83 MHZ
B4	L211	2141544	Trap 4.5 MHZ	4.5 MHZ
C6	DL301	2161311	Delay element	
B6	L301	2121699	Peaking	39μH
C6	L302	2121697	Peaking	27μH
C6	L303	2121699	Peaking	39μH
C6	L305	2121702	Peaking	56μH
B7	L306	2121221	Peaking	2.2μH
	L307	2120251	Peaking	160μH
B3	L401	2121693	Peaking	12μH
A3	L402	2121203	Filter Coil	83MHZ
A3	L403	2121204	Filter coil	45MHZ
A3	L404	2121698	Peaking	33μH
A4	L405	2141012	SIF Transformer	

PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION	
B4	L501	2141531	Band pass	
B6	L502	2121706	Peaking	100μH
A5	L504	2121692	Peaking	10μH
C4	L505	2160831	Fixed coil	15mH
A4	L506	2120231	Peaking	5.6mH

COILS

D4	L701	2120483	Filter coil	FL-391K
D5⚠	L702	2121211	Filter coil FL-050M	
E6	L703	2120482	Filter coil FL-101K	
D6	L704	2120486	Filter coil FL-472J	
D5	L705	2120333	HFC (heater choke)	
D5	L706	2120333	HFC (heater choke)	
E5	L707	2120482	Filter coil FL-101K	
D1⚠	L901	2121673	Line filter coil	
E1⚠	L902	2121811	Filter coil	
D5	L708	2120334	HFC (heater choke)	
A6	L851	2121708	Peaking	
C1⚠	L903	2160966	Degaussing coil	

COMPOUND COMPONENT

B2	CP201	2141712	Compound trap coil
B2	CP202	2141713	Compound trap coil
B2	CP203	2141584	Compound trap coil
C5	CP501	2121571	Compound trap coil

MISCELLANEOUS

		2750092	Antenna-Telescopic antenna
		2750051	Antenna-Loop antenna
	⚠	2685771	Antenna terminal board (CT-925, U.S.A)
		3157302	Back cover assembly
		2506371	Board-Signal P.W board
		3319081	Board-Power supply, DEF P.W board
		2506411	Board-C.P.T P.W board
		3112981	Cabinet assembly (CT-925)
		3112991	Cabinet assembly (CT-945)
	X501	2783071	Crystal
	CF401	2140631	Ceramic filter
	⚠	2740872	Cord-AC cord
	⚠	2440793	Deflection yoke
		2730063	Earphone
⚠	J451	2670311	Earphone jack

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PLACE	SYMBOL NO.	STOCK NO.	DESCRIPTION
⚠	F901	2720058	Fuse 4A
⚠	F902	2720055	Fuse 1A
		3234221	Front frame assembly (CT-925)
		3234401	Front frame assembly (CT-945)
		3256871	Knob-VHF channel selector
		3253461	Knob-VHF pre-set fine tuning
		3256871	Knob-UHF channel selector
		3256881	Knob-UHF fine tuning
		3256582	Knob-ON/OFF switch
		3256582	Knob-Volume
		3256602	Knob-Bright, Tint, Color, Contrast and V. hold
		3256612	Knob-Electro APS
⚠	NE851	2340181	Lamp-Neon lamp
⚠	NE852	2340181	Lamp-Neon lamp
⚠	NE853	2340181	Lamp-Neon lamp
⚠	S001	2760403	Lamp for Electro APS
		2760402	Lamp for UHF indicator (CT-945)
		2760401	Lamp for VHF indicator (CT-945)
	SP451	2410184	Speaker
	S050	2630771	Switch-Push switch
⚠	S901	2630833	Switch-ON/OFF switch
	SG851	2340034	Spark gap
	SG852	2340034	Spark gap
	SG853	2340034	Spark gap
⚠	SG854	2340034	Spark gap
	⚠	2421521	Tuner-VHF tuner HT-326F
	⚠	2421533	Tuner-UHF tuner HU-354B
⚠	V1	2351041	Tube-C.P.T 510HRB22
		2684641	VHF antenna adapter
⚠	R053	0159247	Variable Resistor-50KΩ–Z (Volume)

Printed Circuit Board Assy. Listed for reference only.
Not considered replacement parts.

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